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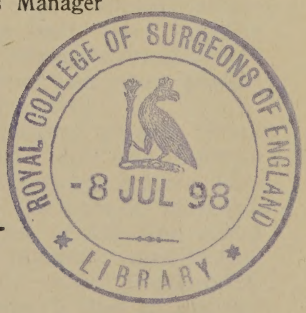
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Original

TREATMENT OF GASTRIC ULCERATION.

BY T. J. BIGGS, M. D.,
Sound View Hospital, Stamford, Conn.

Too often ulcer of the stomach is not diagnosed until the post mortem. In 5 per cent. of those dying from all causes, ulcers, either cicatrized or open, are found in the stomach; the scars of them being the more common. The female sex is more subject to them than the male, which may perhaps be due to the fashionable compression of the waist. The age of greatest liability to this form of disease is from 20 to 40 years. It seldom occurs in young children. It oftenest attacks anemic or chlorotic individuals, and is not infrequently associated with tuberculosis. Ulcers are usually situated in the posterior wall of the stomach, near the pylorus and close to the lesser curve. They vary in diameter from half an inch to two inches, though they may be even much larger. The usual shape is round or oval, with an oblique funnel shape becoming smaller as it extends more deeply. The depth varies; sometimes involving only the mucous coat, at other times extending to deeper structures, and even perforating the stomach wall.

Gastric ulceration results from self digestion of a part of the stomach wall by the gastric juice. This is prevented in the normal stomach by the circulation of alkaline blood in the gastric mucous membrane. Its most frequent cause is malnutrition of the stomach due to altered states of the blood, as in anemia and chlorosis. It also results occasionally from chronic congestion, such as seen in chronic gastritis or disease of the right side of the heart. It may follow disease of the left side

of the heart, when the branches of the gastric artery become plugged with emboli. General dyspeptic symptoms may or may not be present. Symptoms due to the disease which causes the ulcer are complained of. The specific symptom is pain which is fixed and does not radiate; usually under the ensiform cartilage and between the scapulae; is increased by pressure, and immediately on taking food; but often occurs in paroxysms independent of these causes. Vomiting occurs soon after taking food, from irritation; the matter vomited often containing blood-streaked mucus. There is hemorrhage in 50 per cent. of cases, varying in amount, and generally black, unless the ulcer is very large. The prognosis is generally favorable under proper treatment and good conditions, depending also somewhat on the cause.

TREATMENT.

The treatment should consist in rest, close attention to diet and secretions, and medicines applied symptomatically from time to time. Absolute rest in bed should be enforced until the symptoms have subsided. In chronic cases absolute rest is not so necessary, though care should be observed in this respect in such cases also. The food must be easy of digestion and non-irritating, taken in small quantities and often. If the case is severe rectal feeding should be adopted until the stomach is able to retain food comfortably. For the well-informed practitioner it is needless to remark that bovinine is the nourishment tacitly indicated in all such cases; using anywhere from 10 to 30 drops, according to the case, every one or two hours, in milk that has been boiled, water or cold bouillon. The reason why bovinine is so evidently the specific nourishment for such cases lies in the fact that it involves but one process of assimilation to the blood, namely, the conversion of the egg albumen contained in it to albuminose, the bulk of the liquid being blood, ready to be absorbed directly into the circulation, as perfected nutrition instead of mere nutriment or food. Thus the stomach gets almost absolute rest, even while receiving this nourishment; since, as is well known, the egg albumen itself is passively absorbed into any part of the digestive tract, and so the most perfect nutrition of the system, including the diseased part of the stomach itself, is kept up without interruption, without irritation, and without injurious functional labor.

CHRONIC GASTRIC ULCERATION.

Miss E—— R——, of Newark, N. J., English, age 46, admitted to Sound View Hospital September 10, 1897; gastric ulcer, all symptoms present of a well-defined chronic case. General dyspepsia, of more or less flatulent form; fixed pain under the ensiform cartilage, extending back between the scapulae, much increased by pressure, and also greatly aggravated immediately on taking food. There were also paroxysms of pain independently of food or pressure. The patient usually vomited after eating; the vomited matter usually containing blood-streaked mucus. She had suffered four hemorrhages of the stomach. The case was of six months' standing, as near as I could learn, and had received many of the usual forms of treatment.

On September 12th the patient's stomach was gently washed out with a 20 per cent. solution of boracic acid. Absolute rest in bed was insisted on. Twenty drops of bovinine were administered every hour in a tablespoonful of lime water. Her functions also were regulated, and bowels washed out once in 48 hours with an enema of glycerine and soap suds.

At the end of the first 48 hours the patient said she felt greatly relieved of pain, and had not vomited in six hours.

On the 14th the bovinine was increased to 30 drops every hour, in lime water and cold bouillon. Also was given ten drops of tincture of nux vomica and 15 drops peroxide of hydrogen three times a day, care being taken, of course, to see that the bovinine and peroxide of hydrogen were not taken at the same time.

Patient now showed decided improvement; pain occurred only at intervals, and with much less severity; vomiting had ceased entirely; there had been no hemorrhage, and a de-

cided change for the better in the general physical and mental condition was apparent. It had been remarkable thus far to note the rapidity with which the pain was removed, a phenomenon always attendant on the application of bovinine to painful ulcerations, but which has not yet been decisively accounted for by the theories that have been suggested.

On September 21—the bovinine, nux vomica and peroxide of hydrogen having been continued—the progressive improvement permitted the patient to take boiled milk, buttermilk and barley gruel. This treatment continued unchanged till October 1, when the bovinine was increased to a teaspoonful every two hours, principally in cold bouillon; the nux vomica and peroxide being continued. The next change was on October 15, when the bovinine was increased to a tablespoonful in old port wine, and the peroxide was discontinued, but not the nux vomica.

The patient could now be allowed a certain amount of daily exercise in the open air. She now suffered no pain whatever, further than some soreness to pressure; no nausea or vomiting, and the dyspeptic symptoms had almost entirely disappeared.

Bovinine and nux vomica were continued as above, and five grains animal charcoal were given after each taking of bovinine, to correct a tendency to fermentation, there having been observed on the 13th and 14th considerable accumulation of gas. After a few doses of charcoal this symptom was entirely relieved. On the 20th the charcoal was discontinued; nux vomica and bovinine still as before, until November 1.

November 1.—At this time, outside of a little soreness under pressure, the patient seemed entirely restored to health. She was, however, advised to continue the treatment, which she faithfully did, up to the 18th, when a thorough and careful examination, physical and microscopical, revealed the ulcer entirely healed and health perfectly restored. The case will be watched for some months further, and recalled hereafter.

NOSOPHEN AND ITS SOLUBLE SODIUM SALT (AUTINOSINE).

By LOUIS LEWIS, Philadelphia, Pa.

Two remarkable acquisitions to our well-stocked armamentary of antiseptic agents command special consideration, because of certain properties peculiar to themselves and not adequately shared by similar preparations. Though comparatively recent products of chemical science these remedies have been in the hands of the profession ample time to establish their worth, and they have earned the indorsement of hosts of practitioners. I refer to Nosophen and Autinosine, and propose to notice them conjointly, as they are closely related and possess mutual advantages. Nosophen is a straw-colored powder, elaborated by the action of iodine on phenol-phtalein in solution. It is inodorous and insoluble in water (and acids); but in the form of Autinosine it is freely soluble, and the solution is an efficient substitute for Nosophen when the powder is inconvenient of application. Autinosine is of a dull purple hue, and consists of Nosophen in chemical combination with soda. It is innocuous and quite unirritating; nevertheless it has a germicidal power unexcelled by any known antiseptic of its kind. Nosophen holds at least 60 per cent. of iodine in intimate union, and a temperature of 220 per cent. is needed to effect any liberation of its iodine.

And just here is where it differs from iodoform and all other antiseptic compounds, in that its antiseptic effect is not due to liberation of

iodine; as a matter of fact, no iodine becomes free within the organism when Nosophen is applied, and Nosophen reappears in the excreta "in statu quo." The free alkali in the human secretions transforms Nosophen (tetraiodophenolphtalein) into the soluble sodium salt of tetraiodophenolphtalein (which is Autinosine), and this, as a soluble complex iodine compound, exerts a bactericidal action by combining with the proteids of the human juices. With iodoform and other iodine compounds the freed iodine only combines with these proteids, thereby securing antisepsis; but the distinguishing feature of Nosophen is that a fixed complex iodine compound—not simple iodine —combines with the proteids. This provides for stronger bactericidal effect, while totally excluding the possibility of iodine poisoning. And thus Nosophen is absolutely harmless and unirritating, and may be employed internally, as well as externally; but I am here alluding only to its topical services. As an absorbent and "drier" Nosophen is of signal ability, rapidly cleaning up the secretions of ulcerated surfaces; it is moreover a bactericide of the highest order, and those combined properties commend it in the treatment of various morbid conditions. For example Nosophen is invaluable as a dusting powder, for chancres, chancroids and all venereal ulcers, and for subpreputial herpes, extra-glandular herpes and posthitis; providing that in these cases a thin application only of the powder is used; otherwise scabbing is liable to ensue and hinder absorption by retaining the secretions. Soft chancres usually yield to Nosophen in a week or ten days, and I have seen hard sores healed inside of two weeks.

In a case of recurrent herpes of the prepuce, which proved an obstinate sequelae to chancroids, I exhausted all the usual means to arrest its return without success. Finally Nosophen powder permanently removed all traces of the vesicles. Nosophen gives a help to the process of granulation and is exceptionally useful in wounds, abscesses, buboes and sinuses, wherever situated, due care being of course taken in the thorough cleansing of surfaces and cavities before applying the powder. I will cite an instance of its surgical value. Following an amputation at the upper third of the leg an abscess developed in the stump, which left two sinuses, each about two and one-half inches deep, leading down to the bone. Another (higher) amputation was proposed by the attendant surgeon, but the patient demurred. The sinuses were then closely packed with Nosophen powder, after antiseptisization with hydrogen peroxide. Both sinuses were healed in about two weeks, and they have so remained up to now, more than a year since treatment. All abscess cavities are benefited by the use of this powder. Nosophen is serviceable and frequently curative—employed as an insufflation—in rhinitis and other affections involving the nasal, aural and pharyngeal lining, and as a guard against fibrinous deposit after cauterization of these passages. In simple coryza ("cold in the head"), a pinch or two of Nosophen arrests the annoying discharge at once. Autinosine solution (from 4 to 6 per cent.) provides a capital lotion for chloasma and weeping eczema, and the dry powder often rivals Nosophen in the treatment of venereal ulcers. The solution also gives good results in "ringworm" and herpes zoster, and in palmar psoriasis, after removal of the crusts, by poulticing. (In such cases I have hitherto had recourse to iodine liniment.) Autinosine makes an efficient injection in cases of gonorrhea and vaginitis, a 2 per cent. solution generally sufficing to check and ultimately arrest the discharge, while relieving the accompanying irritation.

I will now end this brief notice by emphasizing the fact that our old unsavory friend, iodoform, valuable as it undoubtedly has been to surgery, is always more or less irritating, often causes erythamatous and eczematous eruptions, and, when applied to large surfaces, is sometimes actually poisonous, as it is readily absorbed from recent wounds, and even from granulating surfaces. These are grave objections that certainly cannot be urged against Nosophen and Autinosine.

EXPERIENCES AND REMARKS ON BLOOD TREATMENT IN THE HOSPITAL OF PROF. E. H. PRATT, M. D., CHICAGO.

To my Co-Laborers in the Practice of Medicine and Surgery:

Something more than five years ago Dr. C. S. Eldridge, of Chicago, asked me if I was alive to the value of local feeding in varicose ulcers of the legs. I replied that I was not. He then informed me that he had rapidly cured a few bad cases of varicose ulceration of the legs, which had proved intractable to all other measures, by the local use of bovinine. His method of application was to saturate a few layers of sterilized gauze with bovinine, full strength, and apply it directly over the ulcerated surfaces, holding it there by bandaging. The application was made twice a day. The ulcers rapidly began to heal, and in the course of a few weeks' time were completely cured.

SUPPLIED BLOOD VERSUS GANGRENE.

During the next week there chanced to come under my observation the only case of gangrene of the scrotum that I had ever seen. It had resulted from subcutaneous ligature of the pampiniform plexus of veins for the cure of varicocele in an anemic subject. The gangrene appeared at the bottom of the scrotum a few days after the operation, and spread rapidly. In spite of all efforts to check its progress the lower half of the scrotum rotted away, exposing the testes, upon which gangrenous spots speedily put in an appearance. Red streaks extending from the scrotum upward and outward along either groin indicated that the progress of death was going on along the tissues in the direction of the cords, the left one being the more marked. The areolar tissue beneath the inflamed tracts rapidly rotted away, so that the finger could readily be passed its full length in the direction of the inguinal canal on either side. The patient's temperature ranged from 101 1-2 to 103 degrees, his pulse seldom going below 120, and death was rapidly approaching. Strenuous efforts were made to check the progress of the spreading gangrene, but to no purpose. The necrotic surfaces were frequently and thoroughly dressed with various antiseptic preparations, such as charcoal, quinine and iodoform, after being carefully cleansed with sometimes bichloride solution, sometimes carbolized water, and sometimes a weak solution of bromine. In spite, however, of continuous and faithful attention to the decaying parts, as well as careful treatment of the patient's general condition by the exhibition of appropriate internal remedies, the gangrene spread rapidly and the room became so offensive with the odor of death as to be nauseating to those in attendance upon the case, and the exhibition of Platt's chlorides and other atmospheric disinfectants seemed to be utterly powerless to control the terrible odor.

After at least two-thirds of the scrotum had been rotted away and the patient's life completely despaired of it occurred to me to try the efficacy of local feeding as a last resort; the appearance of the granulating surfaces in the few places where they could be observed between the large patches of gangrene upon the surfaces of the testes pointing to the fact that the tissues were certainly badly starved, they were so pale and anemic and fragile in their nature.

Accordingly the man was placed under an anesthetic. Much of the dead tissue was removed with the aid of tissue forceps and scissors, some of it, however, clinging so closely to the decaying surfaces as to render the removal of all the patches of gangrene impossible. Iodoform gauze was then soaked in bovinine, each testis was wrapped in a separate strip of it, pieces of it were tucked well up into the groin under the line taken by the rapidly

spreading disease, then a large piece of it was wrapped around the entire scrotum and spread over the outer surfaces of the groins. While memory lasts I can never forget the extreme surprise, as well as satisfaction, at the result of the first treatment. The odor immediately disappeared from the room, the fever of the patient subsided, his pulse lowered and he was perceptibly better in every way, his restlessness and thirst rapidly disappearing, and he became for the first time comfortable. Bovinine was poured over the surfaces of the gauze once in two hours, but the dressings were not removed for 24 hours, although previously they had been changed every two or three hours in order to stay the progress of the disease if possible. When the dressings were removed at the expiration of 24 hours there was no odor whatever to the wound, and although the patches of gangrene were not entirely gone the granulations were of a healthier type. The bovinine dressings were again applied, this time without the anesthetic, and were kept in position this time for 48 hours, saturating the gauze every two hours by pouring bovinine over its outer surface as had been previously done. When the dressings were removed the gangrene had almost entirely disappeared, the exposed surfaces had taken on a healthy appearance, and the case was evidently rescued. The bovinine dressings were continued until the case was entirely recovered. So much of the scrotum had sloughed away, however, that as the wound healed it left the testes exposed in two-thirds of their extent.

SUPPLIED BLOOD IN PLASTIC OPERATION.

The man was then anesthetized, the lower margins of the remaining portions of the scrotum denuded, drawn down and brought together over the testes so as to satisfactorily cover them. A dressing of bovinine was placed over the wound, which healed without suppuration, and the final result was a complete recovery, the appearance of the parts being that of a first-class amputation of the scrotum.

SUPPLIED BLOOD FOR A GANGRENOUS HOSPITAL.

The success of local feeding in this case was not forgotten. Soon after, while on service as a consulting surgeon in Cook County Hospital, gangrene appeared in one of the wards, and, fully alive to the serious nature of the infection, I tried to prevail upon the authorities of the hospital to furnish bovinine to stay the scourge. This they refused to do on account of the expense of the preparation and because they considered it a food and not a medicine, and a proprietary article at that, and as a result of the various excuses which were trumped up I was not able to obtain it from the hospital supplies. Resolved, however, to stay the scourge at all cost, I furnished the bovinine myself, and had the extreme satisfaction of bringing every single case to a rapid and successful recovery, and completely stamping out the plague from the wards in which it appeared.

Backed by this experience of bovinine in so formidable a malady as gangrene it occurred to me that it might be as serviceable to prevent gangrene as well as to cure it.

SUPPLIED BLOOD IN GYNECOLOGICAL OPERATIONS.

In several of my operations for vaginal hysterectomy, where the vault of the vagina had been in such a poor condition of nutrition as to become mottled with purpuric spots while cleansing the vagina for the operation, I had trouble with the subsequent appearance of gangrene in the vault of the vagina. Bovinine here, as in the other cases, had been my sheet anchor and proved adequate to the occasion. Reflecting that what could be cured could certainly be prevented, I then began the practice of local feeding in the vagina in those delicate cases where hysterectomy had been determined upon and the appearance of gangrene was feared as a consequence.

Here is a case in point, for instance: A lady 73 years old, was suffering from tic douloureux so severely that living was becoming so intolerable that she longed for death, as she saw no prospect of any other relief from her extreme suffering. She

was then brought to me for treatment, and upon making an examination of the pelvic organs I noticed that the vagina was so pale and anemic and the circulation so poor that the mere process of examination produced a mottled appearance of the atrophied cervix and the vault of the vagina. She was under an anesthetic at the time of the examination, so instead of operating upon her I simply dilated the uterus, which presented the appearance of having been lacerated at one of the confinements she had sustained in the earlier part of her life, dilated and trimmed the rectum, and then placed her in bed. When she awoke I informed her of her condition and that I was very sorry to say that I could not do the work necessary to relieve her neuralgia on account of the poor condition of nutrition of the parts, but that she would have to be patient for at least a month in order to be put in proper condition for the radical work. Agreeably to my word I kept the vagina filled with bovinine night and day, injecting two or three teaspoonfuls with a small syringe and plugging the vulva with cotton so as to prevent the food from escaping. At the end of that time the vagina could be douched and manipulated without inducing purpuric spots. She was again anesthetized and the uterus, ovaries and tubes removed. I am pleased to report that the wound healed without the slightest trace of suppuration or the exhibition of any approaching gangrene. She made a rapid convalescence, the tic douloureux was immediately relieved, and in two weeks' time she was able to sit up, and in a month's time was discharged a perfectly well woman. Nearly two years have gone by since then, and her tic douroleux has never returned. She has gained 30 pounds of flesh and is now one of the happiest and healthiest women in Wisconsin. I am satisfied that but for the aid of the local feeding I would scarcely have been able to carry this case to a successful issue.

I have found local feeding of the vagina by means of bovinine valuable also not only as a preparatory treatment for operative interference, but to renew the tonicity and vitality of the parts in cases where sexual waste from various causes has been excessive and the general strength of the patient correspondingly depleted. It seems to feed, strengthen and revivify the tissues to which it is steadily applied for a few weeks in succession. I have never known it to cause irritation or inflammation or any unhappy results, not even discomfort. On the contrary, it seems to be stimulating and strengthening to the general system as well.

BLOOD AND OXYGEN FOR STERILIZATION OF PARTS.

While I am speaking of the subject there is another use which I have also made of bovinine to which I would like to attract your attention, and that is in the preparation of a field for intended operation upon the skin surfaces.

It is now an almost universal practice to scrub a surface that is to be operated upon with soap and water by means of a flesh brush before making use of ether, alcohol and bichloride of mercury or carbolic solution or whatever germicide is selected. The alcohol and ether and the germicides are all right, but the scrubbing process has its disadvantages. While it removes the sebaceous matter and other sources of infection from the surface of the cuticle, the scrubbing does not reach the deeper parts of the sebaceous and sweat glands, and at the same time it scratches away so much of the cuticle as to leave the sensitive and readily absorbing surface at the mercy of any infecting matter to which it may be exposed. There is a substitute for the scrubbing which is more effective as a cleansing measure, which saves the traumatism occasioned by the mere scratching of the brush, and which has been so satisfactory in my practice now for several years that I desire to give it my hearty indorsement and suggest it as a measure for general adoption by the profession, and that is the local application of bovinine, followed, while the bovinine still covers the surface, by peroxide of hydrogen. Peroxide of hydrogen seems to have a very marked affinity for bovinine,

so that it froths and bubbles as soon as it comes in contact with it, as though it were attacking pus or blood. It makes an even more active attack upon bovinine than it does upon other matters, as evinced by the heat evolved as the frothy product is produced. Bovinine is so penetrating as to enter both the sebaceous and sweat glands freely, and the peroxide of hydrogen proves to be equally penetrating, for it removes every trace of the bovinine and with it all evidence of grease or filth of any kind. After the froth has been washed away by sterilized water the surface of the skin appears clean and smooth, and is then ready for the aseptic or antiseptic solutions, as the surgeon may prefer. I have now employed this combination of bovinine and peroxide of hydrogen in several hundred cases as the first measure in cleaning an operating field, and it has given me such complete and universal satisfaction that I heartily commend it to the consideration of my fellow surgeons.

Fraternally yours,
E. H. PRATT.

Chicago, Ill., Nov. 6, 1897.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery—Meeting of November 19, 1897.

DISEASE AND DEFORMITY OF THE TIBIA.

Dr. S. Ketch presented a patient with an unusual deformity of five years' duration. The patient was a girl 12 years old. He had seen her for the first time one week ago. There was anterior bowing of the right tibia and some eversion of the foot. The bone was three inches longer than that of the well leg and greatly thickened. The circumference of the leg was one and one-half inches larger than on the well side. The child's general condition was poor, the result probably of pain, which has been a feature of the history. The skiagraph showed a thickened tibia with some irregularities in the enlargement and an almost complete disappearance of the epiphyseal line, due to pressure. He had traced cases resembling this in many features to syphilis, but here there were no signs of infection and no history of transmission.

Dr. W. R. Townsend said that he had seen a somewhat similar case in which the extra heat of the limb had led to a diagnosis of osteitis. The diagnosis was wrong, however, as at the end of five years the bone was found to be sarcomatous, and amputation was done. He thought that the question of sarcoma should not be overlooked in considering the treatment of the present case. The remarkable deformity of the bone had some resemblance to the bowing of a syphilitic tibia, but it was not the "lame de sabre" described by Fournier.

Dr. H. L. Taylor said that the strong anterior curvature of the tibia, the enlargement throughout the shaft, the slight nodes on the surface and the elongation of the bone pointed to syphilitic osteitis.

Dr. J. Teschner had noticed that the swelling and tenderness were more marked on the anterior aspect of the bone, where there was probably pus. These signs and the localized heat indicated an inflammatory

action and led him to believe that there was necrosis and that a sequestrum had produced the thickening and enlargement.

Dr. R. Whitman said that the skiagraph showed that the entire bone was involved. He did not think it was sarcoma, but rather a case of diffuse osteitis which might have been of syphilitic origin. There might also have been a fragment of necrosed bone within the shaft which kept up the chronic inflammation with continuous enlargement of the bone.

Dr. V. P. Gibney said that he would treat the case as one of abscess of the tibia. Opening the medullary canal would probably reveal several abscesses. In any case it would not do any harm to operate in this way, even if the case were one of sarcoma. He had operated for multiple abscess of the tibia in a young woman and had planted decalcified ox bone in the trough-like cavity. Some of it remained and some did not, and other operations had to be done. Since the last she had been perfectly well and was living out at service.

Dr. Ketch said he was disinclined to think that his patient had sarcoma. This, as well as multiple abscess, would have caused more local and general disturbance. He believed that a sequestrum was present. Anti-syphilitic medication would be thoroughly tried and after that it was probable that the bone would be operated on.

A CASE OF GENU-VALGUM.

Dr. R. H. Sayre presented a patient, a boy 16 years old, who, while carrying heavy loads in a bakery six months ago, began to have double genu-valgum, the result of adolescent rickets and a failure of the bones of the leg to sustain weight. Three months ago the limbs were put up in plaster of paris and the boy was kept in bed for two months. To correct the deformity a circular cut was made in the plaster of paris around the knee and a wedge of wood was inserted on the outer side. In a week or so the knee was straightened still further and a larger wedge was inserted. At the end of two months, when the splint was removed and the boy began to walk again, there was a slight transient synovitis. To improve his general condition strychnia had been given and the elixer phosphori of the national formulary. The result of the treatment was that the limbs were very nearly straight. As there remains some relaxation of the joints he should have braces to prevent lateral motion during convalescence.

AN OPERATION FOR SLIPPING PATELLA.

Dr. Whitman presented a boy 13 years old on whom he had operated 16 months ago for slipping of the right patella. The capsule had been divided on the outer side and considerable difficulty had been found in reducing the dislocation on account of the contraction of the tissues. A tuck was taken in the capsule on the inner side. The patella was now over the external condyle. When he left the hospital it had been in the median line. For a time he had worn a knee-cap as directed, which he had long since discarded. This case was not presented as a fair test of the operation, as the dislocation was but part of the disability and deformity attending hemiplegic contraction of the right side of the body. It had, however, relieved pain and discomfort.

Dr. Gibney said that it was still a question what is the best treatment for slipping patella. He had transplanted a fragment of the tibia with the insertion of the ligamentum patellae in a girl 14 years old. Union in the new position was secured and the limb was put up in plaster of paris. In spite of a little suppuration recovery was good. The ultimate result, however, was in doubt, as the patient was lost sight of.

In another young women the slipping had occurred repeatedly, followed sometimes by acute inflammation. A splint had been applied and she was wearing it still to keep the patella in place. In a boy of 4 years the slipping patella had been easily reduced and it is probable that massage and the growth and development of the muscular fibres will be sufficient to remove the trouble.

KYPHOSIS OF UNCERTAIN ORIGIN.

Dr. Townsend presented a patient with marked kyphosis in the dorsal region and slight lateral curvature. The patient was a man 24 years old, a clerk by occupation. He had had slight pain in the back for eight years, but within the past year the pain had increased and was accompanied by shortness of breath. The diagnosis had not been fully made. It was possibly a case in which lateral curvature was the chief cause of the deformity and symptoms, or it might be an instance of exaggerated round shoulders, or vertebral caries might have been the origin of the trouble.

Dr. Gibney said he saw no indication of osteitis or tubercular disease of the spine. There was a little lateral curvature and an exaggerated anterior curve.

Dr. Ketch said that the case was one which had not followed the ordinary course of lateral curvature. The general kyphosis reminded him of senile curvature, which, however, rarely occurred at the age of the patient. The man had said that the pain had been so severe as to require the use of mustard plasters. It had radiated around from the back to the front under the nipples. He had never met a case of lateral curvature in which there was pain at the terminal end of the nerve. He thought this was the pain of an inflammatory lesion and that the trouble was antro-posterior, rather than lateral, and was getting worse. He would treat the patient for an inflammatory infection and would advise a certain amount of rest for the spine.

Dr. Teschner thought that the curvature was antero-posterior and that the condition was neither tubercular, rheumatic nor osteitic, and that the pain was not necessarily due to nerve pressure, but rather to the immobility of the spine, or it might be due to indigestion. He would increase the mobility by two or three weeks of gymnastics. He thought that the patient should not be put in any kind of retentive apparatus which would hold the spine immovable. Considerable pain was present in some cases, even when the curvature was not marked. This pain was generally due to a relaxed condition and not to nerve pressure. It was a muscular pain, like that caused by stretching a muscle, analogous to that of muscular rheumatism. This could be relieved by exercising the muscles vigorously, producing a little more pain, and repeating the same thing the next day. The pain will then disappear. These cases could be cured in from 48 to 72 hours, if relief from pain were considered a cure. Some lateral curvature patients complained of pain only on executing certain movements, as for instance, writing or violin playing, etc. A patient had formerly been able to play the violin from two to three hours without inconvenience. When lateral curvature appeared she could not play for 15 minutes without pain, but after a short treatment she could play as formerly.

Dr. A. B. Judson thought that the case was one of lateral curvature in which the curve in the line of the spinous processes was slight, while the curve in the bodies of the vertebrae was probably exaggerated. This would have the same effect on the trunk as if it were compressed vertically. The trunk was shortened and the result was bulging of the chest walls and kyphosis with a sharp anterior curvature in the lumbar spine. In a question of diagnosis he thought that pain and other subjective symptoms were less important than the objective signs. He would treat the patient for lateral curvature by appropriate exercises and attitudes for expanding the contents of the chest and the avoidance of fatigue.

Dr. Taylor thought that the case was one of lateral curvature with more than the usual pain and with the exaggerated roundness of the shoulders sometimes found in people whose weakness induced postural deformity.

Dr. T. H. Manley said that the history of the case pointed to some special constitutional condition which had caused the deflection of the spine. He thought that the question of syphilis should be considered. There were no evidences of a tuber-

cular condition, but he thought that there was a rachitic element in the case. He would combine local mechanical support with constitutional treatment by the administration of acids or iron.

UNUSUAL DISLOCATION OF THE TIBIA.

Dr. Taylor presented a patient with unusual deformity and disability of the right knee. The patient was a woman, 23 years old. The trouble had begun when she was nine months old with redness and swelling, and the knee became flexed and its motions limited. When she was 10 years old the knee was injured by a fall and has been deformed as at present ever since. There has been no abscess and no cutting operation has been performed. There is complete dislocation of the head of the tibia backward and abnormal lateral mobility. The bones of the knee are small and there is about one and one-half inches of shortening of the limb. There is considerable voluntary motion and she can walk for a few minutes without her brace.

Dr. Townsend had seen a similar case, but less marked, in which the deformity was due to an inflammatory lesion without any destruction of the bone.

Dr. Gibney recalled cases of supposed congenital dislocation of the hip in which operation had revealed the results of an inflammatory process so extensive that the head of the bone was well-nigh gone. He thought the present case might have had a similar origin.

Dr. Manley thought that the condition of the patient's knee was due to some pathological process and not to traumatism. He said that the case was a proper one for resection of the fibula and tibia. He was perfectly aware that the acuteness of the operative furor had swept over and that we are getting back to more salutary conservatism, but this seemed to be an ideal case for operation.

Dr. Taylor said that the patient had declined operative treatment and he intended to continue giving to the limb mechanical support by means of a Thomas (caliper) splint attached to the shoe, instead of extending below it. He thought that the small size of the bones was due to lack of development rather than to destruction of the bone, and that it was very improbable that this condition was produced by a fall in a healthy limb. There had been some pathological process from infancy which had probably left subluxation and flexion, as usually happens in chronic inflammation of the knee, and the fall at 10 years of age might have greatly increased the trouble. He had seen a patient in whom a similar condition had been caused by traction applied in the treatment of hip joint disease. The hip was cured, but the knee was weakened so that the tibia just hung on the posterior edge of the condyles.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

Editorial

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THE NEW YEAR.

The year 1897 is past and again we are rejoiced to wish our readers a Happy New Year!

No marked advancement has been made during the past year in medicine or surgery, and yet we feel that this statement must be qualified. There is no stationary period in the annals of medicine. Advancement takes place constantly, but we overlook the minor events which lead to the major in our struggle to find something startling. Our failures may be due to amblyopia. The mist before our eyes may be the impetuosity we have for the end, neglecting the details. Let us resolve for 1898 to enlarge upon the latter. Good resolutions are in order at this season. It is well "there is a season for everything under the sun." If one did not make resolutions some time during the year he would have none to forget later on.

Upon the advent of the new year the burning question of the hour, in a medical light, seems to be how to keep our patients who can afford to pay from seeking free advice at the hospitals of our cities. One of our prominent specialists told us a short time since that he overcame the difficulty in a measure by turning such of his dispensary patients who apparently could have paid over to particularly awkward and undesirable student attendants, while the really poor he took pains to treat himself. This plan is worthy of patronage by more of our hospital staffs. Let the well-to-do patient be the fit subject of education and experimentation in our free institutions and treat the worthy poor with all the advantages of science and training.

Another point in connection with the hospital question, it seems to us, is the fact that many physicians are too prone to send their pay patients to a hospital if the case seems beyond the attendant's skill.

Instead of calling consultation or seeking private advice these men will hustle the patient off to the hospital and be glad to be relieved of the responsibility of the case. Often these very men are the ones who cry

loudest against hospital service. The time has come when many of the so-called specialties can be handled by the general practitioner who has thoroughly qualified himself in each branch.

Patients of moderate circumstances consider the fees of specialists higher than their limited means allow, and their family physician, unable to treat the case successfully, hurries them off to the free hospital without even consulting the specialist as to the chances of reduction of fees or giving the time to educate himself to treat such cases.

We regret that our able editor of the department of electro-therapeutics has felt obliged to withdraw, as stated in a recent issue, and thus compel us for the present to discontinue that feature of the "Times and Register." That he has felt the lack of support from the profession at large is ample excuse, but we trust that circumstances may develop in the future whereby we may continue this newly developed department for the interest and education of our readers and the benefit of aur manufucturing advertisers.

Otherwise this periodical will be issued twice a month for 1898 on about the same general lines as formerly. We are always glad of suitable communications from the profession at large and reports from secretaries of medical societies, both major and minor.

THE STATUS OF SURGERY AT THE CLOSE OF '97.

No one can close his eyes to the enormous inroads which operative surgery has made into the domain of therapeutics during the past 20 years.

General surgery has greatly expanded and now at least a half dozen thrifty specialties are outgrowths from it.

Thus we have the gynecologist, the laryngologist, the ophthalmologist, the orthopedist, the genito-urinary, and others who make a specialty of different departments of surgery. In fact, as someone has facetiously remarked, every portion of the human body has a specialist to treat its ills, except there is no specialist for diseases of the navel.

It would therefore be no great overstretch of the truth to say that in a large measure the state of general advance in the healing art must in a considerable degree be determined by the progress made in surgery.

During the past year we have had no startling innovation, or important advance in surgery; perhaps it would be nearer the fact to state that there has been an ebb tide, that a reaction has set in, and that there is less reckless, rash mutilating than was in vogue a year or more ago.

Perhaps this is most marked in gynecology. We have observed that women make wonderful recoveries after operations on their genitals, but it has been discovered, too, that for the same lesions a tentative treatment often produces as good or better permanent results. It cannot be said that any special progress has been made in nose or throat surgery, and no experienced surgeon has yet come forward to recommend complete laryngectomy. Brain surgery has been decidedly on the wane, and the thorax, except for empyema, remains a bete noir. Considerable activity is noted in the surgery of the kidney, at least in the diagnosis of infective lesions of that organ, both by morphological studies and by catheterizing the ureters.

In abdominal surgery for pathologic states, in appropriate cases, there should be now practically no operative mortality.

The drainage tube, and drainage of all kinds, have been cast aside in practically all non-inflammatory lesions of the pelvis and abdomen.

Probably at no time in the history

of American medicine have surgeons as a body felt the pinching effects of hard times as severely as during the past year. Our post-graduate courses have equipped the country with a very large number of capable operators, hospitals and dispensaries of vast proportions have sprung up everywhere, and with "free beds and professional attendance free" the surgeons are "stewing in their own gravy."

Now and then they have the grim satisfaction of operating on some hopeless cases in hospitals which the outside practitioner shrewdly cast adrift in order to reduce his own mortuary record.

In time, no doubt, things will again adjust themselves on a proper plane and all will enter on a new era of prosperity.

Book Reviews.

THE TREATMENT OF DISEASE BY ELECTRIC CURRENTS. A handbook of plain instructions for the general practitioner. By S. H. Monell, D. D., Brooklyn, N. Y. Published by William B. Harrison, 3 and 5 West Eighteenth street, New York. 1088 pages.

Another extremely valuable work on electro-therapeutics has been launched by the same author as the recent publication, "Manual of Static Electricity in X-Ray and Therapeutic Uses," which has attracted world-wide reputation thus early for its clearness of the description and usefulness to the general practitioner.

It would be impossible for us to specialize the headings of the 70 chapters in this volume in the space allotted for this review, therefore it must suffice to state that every known modern employment for faradic, galvanic and static electricity and their therapeutic indications are detailed in this volume with conciseness of language and minute directions of application, so that the general practitioner who runs may read and understand.

Probably no book on electro-therapeutics, and we say it conservatively, has ever equaled this volume for value to those of the profession who would use electricity as a therapeutic agent, and he who does not use it at this age is certainly not up to the times in his profession.

We therefore heartily recommend this volume to our readers, believing that they will not be disappointed in adding it to their libraries.

Clinical Medicine.

In charge of Dr. J. J. Morrissey.

THE CHILD AND THE TEACHER.

J. J. MORRISSEY, A. M., M. D.

The excessive mental stimulation which children are compelled to undergo in our modern system of education cannot but exercise a decidedly deteriorating effect upon their bodily growth and assomilative functions.

Between the ages of 2 and 7 the blood is more liquid than before or afterward, and during this period there are more deaths than in any other five years of life, and yet it is at this time that parents insist upon sending their children to undergo the active demands of school life. The impoverishment of the blood between 2 and 7 years of age is due to the rapid growth of the nervous system, the brain of a child at 7 having very nearly attained its full weight.

Combined with this normal retrogression of the blood constituents we also have as additional factors the close confinement in many schools where an insufficient amount of oxygen is supplied, the strict adherence to studies frequently too profound in character to be intelligently understood, and the massing together of a large number of children of various mental and physical peculiarities. The child is merely considered as one of a class in a general scheme where individuality is lost sight of, and thus the very keynote of successful teaching is disregarded. It is not right that a child possessing a higher order of intellect than that with which his schoolmates are endowed should be permitted to remain at a standstill simply because his intellectual qualifications being of a superior character he must be compelled to suffer on account of the general mediocrity of the school. On the other hand, it certainly is not legitimate education to force those who are not so richly favored where they are made to keenly appreciate their lack of endowment.

Both methods are crude and unfruitful, and both are to be condemned from an intellectual as well as a physical standpoint. Each child should be regarded as an individual, a microcosm, as it were, possessing certain traits, qualities and characteristics either transmitted or acquired, and it should be the earnest desire of the educator to properly and accurately determine the limitations by which each child is circumscribed. This is the only way in which successful education can be conducted, and the child brought to a realization of the interest that is being taken in him.

Where a large number of children are congregated in one room, under the care of a single teacher, it is simply impossible for the best results to be obtained. Each child is a sealed book, the disclosure of which presents as remarkable a series of phenomena as are to be found in the mysteries of nature; in fact, much more so, as the child possesses a soul of infinite capacities, and therefore susceptible of infinite development. With a system of education conducted as we have indicated above morbid feelings and inherited tendencies can be corrected and the child whose future, through no fault of its own, appears dark and uncertain may be converted into an ornament of society.

As is well known all children are not endowed with the same capacity for learning. There is as great a variety of brains as there is of facial characteristics. In some the potentiality of development exists to an unlimited degree, in others there is an incapacity almost bordering on the lowest plane of human development. Some children are remarkably quick in learning, others are exceedingly slow, though when once the correct ideas are acquired they hold them unswervingly. In any case education cannot be considered as a process of alimentation in which a child's brain, acting in the capacity of a stomach, can be filled with any amount of indigestible material—material which only serves to burden and impede, but never nourishes or fructifies. The view point of education must be placed upon a higher elevation than this restricted basis. What then is education? It is the growth, the progress, the legitimate development of the body and soul manifesting themselves in successive stages of development, whereby, through their activities and faculties they properly perform the functions for which they were ordained.

If then our interpretation of education be correct it will immediately be perceived how vastly important a question the choice of the educator must be. If he feels within himself the generous impulse of high endeavor, if he sympathizes with the efforts of his pupils to advance to a higher plane of knowledge, and enters fully into the difficulties that confront them, he becomes not only a teacher but a friend, and there is no word that means so much to the struggling child, as no one can accurately estimate the extraordinary power of his influence. The unconscious stimulation which he exercises is not confined by the limits of the school; it transcends these narrow boundaries and oftentimes is introduced into the home of the child, and there supplies a leaven which elevates, strengthens and purifies. Thus it is that the more advanced educators of the age claim that the personality of the teacher is more important than the study of mere books, for the former is a living exemplar of concentrated wisdom, whose teachings remain with us when the lessons of the latter are enshrouded in the mists of youth. The true teacher then is he who not only communicates knowledge, but also possesses the happy faculty of imparting a thirst for it that can only be quenched when the student has drunk deeply of the Pierian spring.

LAW AND MEDICINE.

J. J. MORRISSEY, A. M., M. D.

The accusation has recently been brought against the legal profession by one of its most distinguished members that it was rapidly deteriorating from the high standard it once occupied. The causes ascribed for this deterioration are (1) that young men enter the profession of law without acquiring that broad basis of preliminary education so essential to any man who hopes to reach the pinnacle of success, and (2), being surpassed by others better equipped for the race, they utilize means which are not above criticism and which are apt to subordinate the dignity of their professional attainments to selfish purposes. What has been said of law may, to a less degree, be also declared concerning medicine. We affirm "to a less degree," because the necessary intellectual equipment of the physician of to-day demands an amount of technical training requiring the highest order of talent. Indeed, the physician who hopes to compete successfully with his colleagues in this scientific age must not only be an all-around athlete in the intellectual arena, whose comprehensive mind and logical deductions will lead him

unerringly to first principles, but he must possess an intimate knowledge of pathological detail that would appear amazing to our predecessors.

Many men fail, both in law and medicine, because they mistake their calling. The patient research, the unflagging zeal and faculty to sift and discriminate is not granted to everyone who enters upon the pursuit of either profession, and therefore it has been truthfully said that many a successful farmer has been spoiled in a poor lawyer. The combination of qualities necessary for the development of a competent representative of either profession is the growth and accretion of years rather than the acquisition of a few months' study. And it is this concentration of purpose, this persistency of acquirement, this love of work and enthusiasm in its pursuit, based upon integrity of character and sound morality, that ultimately leads to the sumnum bonum of true manhood, the upright and honorable lawyer, the noble and conscientious physician.

Medical men, of late years at least, possess an advantage over the members of the legal fraternity, inasmuch as the barrier to the attainment of a medical degree can only be overcome by years of study and earnest work.

The wonderful changes that have taken place in the horizon of medicine during the past decade of years offer a charming prospect to the investigating student, and it is safe to say that we stand only on the threshold, with the doors scarce open. The possibilities of the future are well-nigh infinite in character. Herein medicine differs from law, for the principles of the latter are basic in their nature, and it is only their interpretation that constitutes the practice of law.

And yet, looked at broadly both professions may meet on common ground—a charm found in the practice of either is that noble task of adjusting the principles of truth to the facts and conditions of life.

It must be remembered that while medicine is the grandest of professions, it is the meanest of trades. If the work is done for the work's sake it brings contentment of mind and happiness of heart, but if the end sought is the mere accumulation of wealth there will be discontentment and dissatisfaction if the end is not rapidly attained.

PATHOGENIC ORGANISMS IN INDIGESTION.

In a recent issue of the Lancet Dr. W. H. Allchin, in a deeply interesting article on "Some Relationships of Indigestion," thus describes the blood supply of the digestive tract and the power which pathogenic organisms display in the production of indigestion. He says: "In seeking to explain these exceedingly diverse and widespread results of an imperfect digestion it becomes necessary to consider the structural relations of the alimentary tract with the other organs of the body and thereby to trace the functional relationships which these remote symptoms express. By two distinct structures is this connection established—the nervous and the vascular. The blood supply to the alimentary organs is most extensive, so much so that at any moment a third of the total quantity of the blood of the body is contained in their vessels. This amount is easily capable of great increase by conditions of central or reflex origin which lead to paralysis of the splanchnic area. The direct arterial supply from the aorta possesses—at least as far as the stomach and intestines are concerned—a most complete series of anastomoses, sufficient to compensate for any arrest of obstruction to the circulation in any one part, and this direct supply via the coeliac axis and inferior mesenteric vessels is further supplemented by a most elaborate system of post-peritoneal communications between the visceral and parietal

branches of the aorta sufficient, as has been shown, efficiently to carry on the circulation, even when the main gastro-intestinal trunks have been obliterated. Even more extensive are the arrangements for the venous return, and although there is interposed an obstruction to the gastro-intestinal flow in the shape of the hepatic portal circulation, this is in part counteracted by the free communications between the gastric and mesenteric veins with the oesophageal and inferior hemorrhoidal, as well as the sub-peritoneal parietal vessicles. Accessory to this venous drainage, and also concerned in removing the digested products, is the lymphatic system of vessels and glands.

The author lays great stress on the modifications of the blood pressure in the causation of the reflex symptoms of dyspepsia, and thus accounts for the great relief derived from the administration of a sharp purgative when cephalalgia is a prominent symptom.

He claims that many of the symptoms accompanying indigestion do not depend upon the quantity of the food taken, for the rules of a well-regulated dietary may be broken with impunity now and then without the slightest discomfort arising in consequence. This fact would prove that the "materies morbi" is less in the ingesta presented than in the subsequent digestive process, and is to a great extent independent of the actual food taken. There would appear to be a perversion of the chemical processes with production of toxins, and themselves determined by noxious ingesta or by motori-secretory perversions due to structural changes in the digestive organs, or far more often to a defective innervation.

The chief remedial measure to be adopted must then be directed to the correction of this perversity of nerve force rather than to the execution of elaborate dietetic rules.

The labyrinth of morbid phenomena embraced in the term "dyspepsia" requires the incandescent light of scientific accuracy to guide the observer through its tortuous mazes, but in the article from which we have so copiously quoted there are at least definite landmarks to point out the intricacies of that formidable American disease.

ORTHOPEDICS

In Charge of Dr. E. A. Tracy.

ORTHOPEDICS FOR THE GENERAL PRACTITIONER.

BY EDWARD A. TRACY, M. D,. F. M. M. S., Boston, Mass.

TUBERCULOSIS OF THE KNEE JOINT.

Tuberculosis of the knee joint is a disease that should be diagnosed and treated by the general practitioner, for its diagnosis is not difficult, and its treatment, mechanical, medicinal and hygienic, not so difficult as to need the aid of the orthopedic specialist.

DIAGNOSIS.

A good description of white swelling was given by Collis in his lectures on surgery in Dublin a hundred years ago. While our patholic knowledge of the disease and our methods of treatment have progressed, the clinical aspects of it have not changed, and Collis was a master of clinical observation. He

said: "White swelling, in its proper acceptation, occurs most frequently about the middle periods of life, but is, however, very often seen in children. There is a difference in its approach in these periods. You will never see a case of white swelling commencing under the age of puberty without a deviation from health, but not always so when it makes its appearance in after life. Its approach is slow, is accompanied with pain; the patient is only aware of anything wrong by a stiffness in the motions of the part, and when in the knee joint (which is the most common seat of the disorder) the patient walks badly, with the knee bent. In this insidious way it may go on for several weeks, but on looking at it you perceive that the natural points of the joints are obliterated; that it is swollen and has become more rounded than the sound one, while the natural color of the integument remains unchanged, as the name of the disease would mark as one of its distinguishing characteristics. The joint will permit flexion and extension at this period to a certain extent without any pain, but if you move it beyond this extent the patient will cry out with pain. As matters go on the patient is easily tired; he cannot use as much exercise as he was accustomed to, and his constitution may suffer a little. At last the limb loses all motion in the joint.

* * * * *

"White swelling of the knee is generally of a chronic nature, but sometimes, as in morbus coxae, it is acute, when it will run its course in as many weeks as in the chronic form it would have taken months to do. In the chronic cases the knee is swollen before any pain is felt, but in the acute case motion in the limb is excessively painful before there is any swelling, except, perhaps, a little fullness from an increased secretion into the joint. * * * White swelling might be confounded with other conditions of the joint. Sometimes the large bursa above the patella, between the extensor muscle of the leg and the lower part of the femur, becomes inflamed and fluid is poured out by the sac, and as this bursa often communicates with the plural synovial cavity of the knee joint it might be mistaken for white swelling of it; but it is very easy to distinguish them. In the case of enlarged bursa there is no pain on moving the femur and tibia on each other, and if you make the patient extend his leg by the action of the extensors the figure of the swelling is altered; there will be a hollow made in its middle by the pressure of the muscles and patella. Neither of these will be the case in white swelling. Sometimes after rising, a good deal of exercise, or taking a long walk there will come a pain in the knee and effusion into the joint. This might be mistaken for white swelling, but the difference in the approach of the two is that in white swelling the pain comes on long before the effusion, while in the other case they come together. There is one great distinction between white swelling of the knee and other diseases of it, a symptom that never fails to point out the nature of the case clearly, and it is this—in white swelling the flexor tendons of the leg are not sharply out as they naturally are, but the hollow in the popliteal space is filled up to their level. There is always this filling up of the ham, but I do not know to what it is owing. * * * Patient laboring under this disease seldom complains of pain in the part, but rather of a sense of uneasiness—a feeling as if it was tired."

In children with what may be termed a tubercular diathesis, having a history of tuberculosis in their progenitors, or, with healthy parents, having had the misfortune to be raised on cow's milk, with children showing tubercular glands, look out for trauma, even slight, to the knee joints of such children. The accurate diagnosis of incipient tubercular from simple synovitis of the joint is often impossible. Time is the chief factor in settling the question. The simple synovitis rapidly goes with efficient treatment; the tubercular lingers. Effusion under the knee cap is always present in simple synovitis; not invariably so in tubercular. Effusion is easily recognized. With the limb straight, place one hand

above the other below the knee cap, both flat over the knee joint, the forefinger of the right hand loosely resting upon the cap. Make gentle pressure with the hands (this forces more of the synorial fluid of the joint under the cap), and if effusion be present it can be demonstrated by the knee cap floating upon it, quick pressure upon the cap causing it to knock against the bone beneath. In a tubercular case of the writer's an adhesive inflammation was present, without effusion. This he broke up by a quick flexion of the joint, when an effusion rapidly formed within the joint, together with another sign of acute exacerbation; considerable heat felt over the joint. An ice pack in a few days brought down the inflammation. Immobility and protection of the joint brought about cure.

In connection with this portion of my paper I will quote from an excellent paper of Dr. A. M. Shands, of Washington, D. C., read before the Virginia Medical Society:

"The objective symptoms of tubercular disease of the knee joint are usually so pronounced that an early diagnosis should be made in almost every case by one who has given any special attention to joint diseases. In spite of this assertion I have seen cases that have been treated for articular rheumatism until suppuration is well advanced. The chief symptoms to be relied upon are local heat, swelling, muscular spasm, reflex atrophy of the muscles, both above and below the joint, and tenderness; this is about the order of their importance. Comparison of the diseased joint with its fellow is very valuable assistance. In measuring the lengths of the limbs it should be borne in mind when the disease is well advanced that the diseased one, as a rule, will be found to be longer, varying from one-quarter to three-quarters of an inch. This is not the case in hip diseases. This is due to an overgrowth being produced in the cancellous bone of ends of femur by the hyperemia occasioned by the inflammation.

* * * * *

"It should be borne in mind that pain is not often a prominent symptom in the early stage of the disease; the diagnosis should be made long before this is developed. Heat of the affected joint is present from the beginning of the trouble, and is an important index to the progress of the disease; if the joint is kept perfectly quiet it will disappear to return at once if anything goes wrong; it should serve as an urgent indication for protective treatment as long as it exists in any degree. Lameness is an important symptom, and will vary according to amount of flexion present. Muscular fixation, nature's effort to immobilize the joint, is a prominent feature from the first; there may be a small arc of painless motion, but it will be checked by muscular spasm just as soon as the limit is reached. Muscular spasm is much more prominent in an osteitis than in a synovitis."

After describing his method of treating the disease Dr. Shands says:

"In conclusion I would say that if these tubercular knees are properly treated from the beginning, i. e., by rest and fixation in a straight position, there will not be need of any operative procedure to correct deformities."

The writer agrees with him.

TREATMENT.

The treatment of a tubercular knee joint consists in immobilization of the joint, protection to the immobilized joint, and increase of the natural resistive power to the growth of bacillus tuberculosis that to some extent, fortunately for the race, exists in the organs of every human creature. The increase of this resistive power locally is best brought about by treating the whole of your patient. Get your patient into the best possible condition. Fresh air, fresh meats, milk, eggs, as much as can possibly be assimilated. For medicine, syrup of hydriodic acid, a half teaspoonful for a child a half hour before each meal. And chief among medicaments I find protoiodide of mercury, 1-4 gr. tablet after each meal. Of course when giving mercury you must insist upon the teeth being kept clean, and watch for salivation or sore gums. If either appears stop the mercury for a cou-

ple of weeks after the disappearance of this symptom.

Immobilization is readily gotten by moulding a piece of any wood-fibre splint material over the inner side and back of the whole limb from the fold in the thigh to the ankle, and another piece over the outer side and front of the limb, cutting away a piece over the knee-cap so as to leave it freely exposed. These pieces of wood-fibre material, moistened with water, can be bound snugly over the limb, and no padding of any sort is necessary. Immobilization much superior to that gotten by plaster of paris, or a Thomas splint is the result. The splints form a casing for the limb, which is light and strong. The casing can be removed any time by unwinding the roller bandage, and the limb bathed and examined. Upon reapplying the bandage the wood-fibre casing snugly embraces the limb and absolute immobilization of the knee joint results. Besides immobilization of the joint protection of it is necessary. This is gotten by having the child wear a shoe with a raised sole, say three inches, on the foot of the sound limb, and crutches. Have your patient in the air as much as possible. Don't examine the knee more often than once in three weeks, and then carefully, so as not to jar the joint. Keep knee immobilized and protected until all tenderness has disappeared, and only after that let the patient tentatively use the limb. Should the slightest exacerbation occur insist upon total nonuse of the joint again. This tentative use is allowed by having the raised sole lower than where first applied, say one and one-half inches. After the tentative use of the joint for six months without bad symptoms the child can be let use the limb more freely, but keep him under observation for another year. Treatment, when efficient, generally need last but 18 months. Sometimes a cure will result in a shorter period.

What I have written on treatment applies to children with tuberculosis incipient of the knee joint. In a future paper may be given the treatment for chronic forms of the disease.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

ATROPHY OF THE SPINAL CORD COMPLICATED BY CANCER.

Labarsch briefly notes an interesting class of cases of spinal lesions associated with malignant degeneration.

Two cases are detailed which point to the primary hyperplasia commencing in the spinal marrow.

In 10 cases of gastric carcinoma in seven there was evidence of a secondary invasion of spinal cord, in three by the duodenum, two by the diaphragm and two by the mesentery.

The question in these cases is, has the pathologic change which induces the spinal lesion any influence in leading to cancer by impressions propagated through the nerve trunks? Minnock has recorded several cases, and particularly described the variety of ascites which accompany it.

—Centralblatt fur innere Medicin, No. 48. O. Lubarsch. Uber Ruckenmarksveranderungen bei Carcinomatosen.

FECES.

THE PRACTICE OF EVISCERATION, IN ABDOMINAL SURGERY, SHOCK—STUDY, EXPERIMENTAL AND CLINIC.

BY DR. LOUIS TIXIER.

This summary is the result of an extended period of study, inspired by M. Bouchert—evisceration in abdominal surgery. The work was prosecuted with the collaboration of M. Geimard in the School of Veterinary Physiology, of Lyons.

The complete work occupied 350 pages, with illustrations, diagrams and tracings, showing the effects of intraperitoneal operations on the respiratory and vascular systems. The conclusions are somewhat at variance with those of others, inasmuch as it is recommended that intraperitoneal operations be performed with as much speed as possible.

The conclusions arrived at are the following:

Evisceration is the displacement outward of the abdominal contents, which might be denominated "exentration."

Evisceration may be but momentary, and generally should not occupy more time than the condition for which it is performed.

It may be prolonged or continued when it is partial.

It may be traumatic or post-operative.

Indications for it are variable.

(a) MOMENTARY EVENTRATION.

In contusions of the abdomen, first, there sometimes, it may be easy. It is our only resort when certainty as to the presence or absence of perforation is desirable. In delayed cases it may become a dangerous and difficult manoeuvre. Second. In penetrating wounds of the abdomen it is indispensable to determine the situation and extent of them.

When the opening is small and evisceration is early, there is not much danger. In all cases, especially where deep laceration is expected, the examination should be thorough. It is only when adhesions are firm and leakage arrested that we should desist.

TRAUMATIC EVENTRATION.

In these cases, reintegration of the damaged extrusion should be effected, the parts restored, and a Mikulicz drain inserted.

Third. Intestinal Occlusion.—In chronic cases of this character it is rarely necessary to eviscerate, because, with the hand on the abdomen, we may usually determine the site of the stenosis. But if necessary we should not hesitate to turn the intestines out, as the inflammatory action is languid and permits of moderate exposure and manipulation.

In acute intestinal occlusion evisceration promptly and definitely decides the situation of the trouble. But, unfortunately, now there are serious symptoms present—cardiac collapse, dyspnea, profound intoxication, the state of the peritoneum irritable and inflamed, of the inflated intestine, persistent vomiting, etc., all of which constitute a redoubtable condition.

It can only be permitted in precocious cases. In neglected cases of intestinal obstruction, attended with great exhaustion, eventration is quite out of the question, and we must be contented with making an artificial anus.

It is very rarely here that we can differentiate strangulation from invagination, but in all cases, when it is suspected that the intestine is gangrenous and there is fecal escape the parts must be widely opened.

Fourth. In Peritonitis.—Evisceration is generally contraindicated in this state, as the reflexes are hypersensative to the slightest irritation. It is therefore only when this is localized that evisceration can be considered. When there is a small perforation it would appear proper to withdraw the bowel and repair it; but not in advanced peritonitis, for the shock may be too great, and hence, why, we must be content with gauze drain, leaving the parts widely open for escape of the lethal elements.—Poncet. According to Jaboulay, evisceration may accomplish good results in cases of peritoneal tuberculosis with free ascites.

Fifth.—In gynecology, thanks to Trendelenburg, evisceration is rarely necessary.

(b) Prolonged evisceration may ensue from an accident, or by intervention.

In cases of reintegration after laceration or gangrene of the bowel in hernia, and other condition, it may be necessary.

First. Important details to observe in the operative manual of evisceration:

First, preliminary precautions as proper preparation of the patient. Preparation of the room for operation. Its temperature should be raised to 80 degrees. It should be humid, and of all things care should be taken not to chill the patient.

Asepsis should be always humid. This diminishes vaso-motor dilatation of the herniated intestine. We have the greatest trouble with dry asepsy; as it interferes with exosmosis and is most conspicuous when we employ dry napkins.

Finally, the circulatory and respiratory reflexes from operative manipulations, offer less gravity when the intestines are enveloped by warm, moist linen, and further, moist dressings greatly diminish the prospect of subsequent intestinal adhesions and post-operative intestinal occlusion. Anesthetics should be cautiously used here, ether being always preferred.

Second.—On the Choice of Incision.—This may be made in the middle line, above the umbilicus. By this quite complete evisceration is possible, though here reintegration may be difficult.

Third.—The intestine should be turned out quickly in one mass, and not in segments, in order to prevent irritation of too great a surface.

Fourth.—Reintegration of the extended intestine is always a delicate, and sometimes a difficult, procedure. The use of force must in all cases be avoided, as it often determines the most serious disturbance of the reflexes. Reintegration may be facilitated by lavage of the stomach, after the method of Madelung, Rehu and Kummek, or temporary enterostomy.

Fifth—Closure of Abdominal Walls.—Above all things, we must terminate our operation as quickly as possible; generally one plane of through-and-through suture suffices, though if sepsis be feared, we use drainage.

Sixth. Consecutive Care.—One who has suffered evisceration is always in great shock, and hence we must be on our guard for collapse and meet it with appropriate remedies, as ether, caffeine and serum injections.

The dangers of evisceration are numerous. One of them is well known in every species of laparotomy—adhesions between the intestines, rupture of the cicatrix, post-operative eventration. The others are peculiar to the operation. The greatest of all dangers is shock. The essential character of this state is an ensemble of functional troubles of the respiration and the circulation. This is produced by the peritoneal reflexes, and may readily be brought about, experimentally.

The respiratory reflexes impress the arterial pressure, the heart and pulse.

Invariably we notice in the animal anesthetized, after the abdomen is opened, a fall of the arterial pressure, with a weakening of the pulse.

The respiration becomes shallow and irregular. This is powerfully influenced by the state of the peritoneum.

When the peritoneum is healthy for from six to ten minutes the vascular respiratory organs show no signs of disturbance after evisceration. Beyond this period the peritoneum becomes more and more irritable. The divers functional troubles are more or less independent of each other, as, for example, in some we may have evidence of profound avascular depression without pulmonary implication, and vice versa.

The surgical deductions which we derive from these physiologic disturbances are extremely interesting.

1. In all intraabdominal intervention we must fear the effects of peritoneal irritation, the redoubtable reflexes of which reduce the patient to a state of shock.

2. The dangers of infection we may obviate, but the nerve phenomena resulting from reflex irritation of the peritoneum is a state of great gravity.

3. In the healthy individual the danger of shock in evisceration is slight, provided we do not occupy more than 10 minutes.

4. In those whose peritoneum is diseased the danger is vastly greater.

—Lyon Med., Dec., '97.

Current Medical Literature.

THE TREATMENT OF SYPHILIS OF THE NERVOUS SYSTEM.

BY ARTHUR E. MINK, M. D.,
From the American Journal of Dermatology and Genito-Urinary Diseases, July, 1897.

There are two important points to be kept in mind in the treatment of syphilis of the nervous system, viz., the introduction of remedies in the body which induce destructive tissue metamorphosis, and so destroy the cellular proliferation characteristic of syphilis, and second, by the introduction of other remedies and by the regulation of food and environment to induce a constructive metabolism, which will more than make up for the destructive tissue changes. It is off with the old and on with the new. The writer has within the last few years treated a large number of cases of syphilis of the nervous system, including syphilitic insanity, and a summary of my experience derived from the treatment of these cases may not be devoid of interest to the general practitioner. There are several factors which have an important bearing upon the success or failure in the treatment of nervous syphilis. Among the most important are freedom from neuropathic taint, duration of symptoms and length of time elapsing since infection along with severity of secondary symptoms. Patients with a neuropathic constitution always have the severest manifestations of nervous syphilis, and are least liable to derive any permanent benefit from treatment. The sooner a patient is treated for nervous symptoms the more satisfactory are the results, and, on the other hand, the longer a patient has been infected the graver the outlook. My experience has also led me to believe that there is a certain relation between the severity of primary and scondary stages and the intensity of the nervous manifestations in tertiary stages. I find those cases in which the primary and secondary stages were severe to have milder nervous symptoms and are more amenable to treatment than those where the earlier stages were mild. The physician in treating syphilis needs patience, persistence and boldness.

After first assuring himself that his diagnosis is correct he should proceed to combat the symptoms with all of his energy. Half-way measures are of no avail. The more severe and numerous the symptoms the more heroic should be our treatment. If the patient has an occupation which entails great mental, nervous or physical strain, it is interdicted where possible, and rest with only passive exercise enjoined.

I then give him an inunction of a drachm or half drachm of gray ointment, to be rubbed in at bedtime. This is to be repeated every day until salivation occurs. By carefully cleansing the teeth every few hours the mercurial stomatitis can be greatly retarded. The patient is also required to take a Turkish, hot water or air bath, at least every other day and is required to drink plenty of water, preferably hot; to assist in the elimination of the products of retrograde metamorphosis by stimulating the activity of the skin and kidneys. Alcohol and tobacco, tea and coffee are prohibited, and the diet should

be plain, nutritious and easily digestible. In some cases, where the patient is of robust constitution, I prescribe a very sparse diet in order to facilitate a destructive tissue change. After the patient has had a thorough course of mercurial inunctions I formerly followed it with a course with the iodide of potassium or sodium, but recently I have concluded to abandon their use for the following reasons: Nearly all patients afflicted with syphilis of the nervous system are afflicted with great cardiac and gastro-intestinal irritability. Now, it is necessary in employing these salts to give large and gradually increasing doses, and we rarely fail to see in most cases a disturbance of the heart and gastro-intestinal tract brought about. This, along with the unsightly skin eruption and the fact that many persons suffering from a most pronounced nervous syphilis are unable to bear the smallest dose of these salts, have induced me to look about for a substitute. As a result of my search I have been led to use Gardner's Syrup of Hydriodic Acid, which I believe has all of the advantages and none of the drawbacks of the iodides of potassium or sodium. It agrees better with the stomach, has no depressing influence on the heart, and produces no skin eruption. I have been using it for the last two years with the most gratifying results. The following are a few of the cases taken at random from my case book:

W. G., age 59, and a watchman by occupation, became infected with syphilis 30 years ago while in the army. Was treated somewhat for it, but the secondary symptoms were very light and apparently soon disappeared. About ten years ago he commenced to have violent attacks of nocturnal headache, vertigo, insomnia, etc., along with transitory brachial and crural monoplegias, oculomotor palsy and aphasia, in short, with all the random grouping of symptoms characteristic of brain syphilis. These symptoms, after coming and going, gave place to a profound syphilitic melancholia, which in its turn was followed by hallucinatory insanity. Visual, and especially auditory hallucinations predominated. He had a pronounced delirium of persecutions. He thought that people and even children pointed at him and said: "There goes old Syphilis! He is rotten with the pox!" He heard voices on all sides crying "hang him!" "mob him!" "drown him!" and in his despair to escape his persecutors he jumped into the Mississippi River, from whence he was rescued and taken to the City Hospital. The writer being called, pronounced it a case of syphilitic insanity, and prescribed mercurial inunctions. He improved so rapidly that at the end of two weeks he was removed to his home, where he came under the writer's immediate care. The inunctions were continued for some weeks and then alternated with Gardner's Syrup of Hydriodic Acid, and a tonic pill composed as follows:

R—Auri et sodii. chlor.....gr. ii
Strychnia sulph .....gr. i
Acidi arseniosi .....gr. i
Ferri pyrophos .....dr. i
Quinia sulph. .....dr. i
Ext. gentian q. s. ad pil No. XXX.
Sig.—One t. i. d. after meals.

This treatment, along with the hot baths and the bromides and sulphonal for insomnia, when necessary, was continued persistently for over a year. He made a gradual improvement and is at present almost entirely well.

C. H., aged 39, and a physician by occupation, became infected ten years ago. About two and one-half years ago he developed nocturnal headache. During the day he suffered from vertigo and drowsiness, impairment of memory, attention, ptosis and diplopia, with shifting monoplegias. Came under my care five months ago. Treatment, mercurial inunctions, alternating with Gardner's Syrup of Hydriodic Acid, along with iron, quinine and arsenic. Is now entirely well.

D. L., aged 57, grocer by occupation. Has had syphilis for 20 years. Six years ago he began to manifest the symptoms of Erb's so-called type of syphilitic spinal palsy, involvement of bladder and rectum, exaggerated knee and ankle jerks, slight disturbance of sensation, spastic gait, etc. These were preceded by some of the characteristic symptoms

of brain syphilis. Has been under my care for three months, and is making a steady improvement under mercurial inunctions, hypodermic injections of cyanide of mercury and syrup of hydriodic acid.

S. B., coachman, aged 35 years, had had syphilis for 12 years. Three years ago he was attacked with epileptic convulsions of the Jacksonian type. There was oculo-motor palsy, transitory aphasia and hemiplegia. He became profoundly melancholic and suicidal. He came under my care about 14 months. Gradually improved under energetic mercurial treatment followed by the administration of the syrup of hydriodic acid.

These are a few cases taken at random from my case book. During the last year I have treated 58 cases of cerebro-spinal syphilis upon the lines above laid down, with the most satisfactory results.

We must remember that syphilis puts a stamp of its own upon the nervous system. We should warn the patient that his nervous system is henceforth a place of least resistance, and that he should treat it accordingly.

3329 Lucas Avenue.

SUBSTITUTION.

"There is possibly no man whose reputation can be more easily injured than a practicing physician's. The doctor's success depends entirely on his reputation for moral rectitude and professional knowledge, and for this reason he should be more than scrupulously careful in the administration of medicine. Medical men are possibly the only profession who place the custory of their implements and tools in the hands of others over whom they have practically no direction. The physician may diagnose ever so carefully, or prescribe ever so wisely, yet the moment that prescription leaves his hands the welfare of his patient is beyond his control. He may unite the skill of Osler, Pepper and Loomis in diagnosis, of Bruaton, Wood and Hare in therapeutics, but it is all prostrate before the enlightened intelligence of some perfumed drug clerk. There are many noble leaders in pharmacy who have striven much to raise the drug trade to the dignity of a profession, and many of them have succeeded; but a chain is just as strong as its weakest link. The morale of a profession is at the mercy of its weakest member, and in the profession of pharmacy these are notoriously the substitutors. The substitutor is about the basest production of modern commerce. He has no respect for his own good name; his only interest is in his profits. To make a dime on a prescription he first defrauds the manufacturer who puts up a recognized and well-known article, robbing him of his good name by substituting inferior goods. He then robs the dying man because he does not give him that to which he is entitled. He steals from the physician his good name because he has given a worthless drug. The patient has not improved, and the physician's reputation has suffered in consequence. The man who substitutes in any manner, shape or form can only be held in the eyes of the physician, the patient, and the manufacturer, as the meanest and most contemptible of sneak thieves."

—Extract from editorial in Dominion Medical Monthly, Toronto, Canada, for February, 1897.

"Miseris succurrer dik" (I learn to succor the wretched), and who is more wretched than the individual with a "cold" in his nose? Recognizing this fact at this particular season of the year I would earnestly advise anyone who is so afflicted to try a pinch of nosophen, sniffed up the nostrils like snuff. It is simply a case of "presto and it is cured." "Verbum sap."

Yours truly,
L. LEWIS, M. D.,
2011 Arch st., Phila.

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THE DISTRIBUTION OF IRON IN THE LIVER.

Lindemann has investigated this problem in 25 cases of death from various diseases. The hemosiderin or iron-bearing hemoglobin derivative is stained in sections by the Prussian blue test. He finds that a moderate reaction is not rare in non-anemic cases. Furthermore, that in the localization of the pigment three types can be distinguished. In the first the iron is most abundant, being found in the liver cells, the liver capillaries, in Kupffer's cells, and in the periportal connective tissue; in the second it is absent from the liver cells; and in the third it is present only in the connective tissue. The reaction was obtained in two-thirds of the cases, the first type being predominant in severe anemias, the remainder under various other conditions; it was more often absent in children than adults. The author considers that in diseases other than the anemias the hemosiderin is brought to the liver from without in the circulation, while in those affections it is probably manufactured actually in the hepatic cells themselves. Kretz (ibid., Nos. 15-16) criticises Lindemann's views on the basis of a much greater number (200) of observations. He finds that the hemosiderin reaction is very rare in non-cirrhotic livers, not occurring in more than one case in 15 or 20. The iron is deposited in the liver cells, particularly on the side of the bile capillaries and in the connective tissue, both intra and interacinous; the deposits in the last-named situation are mainly from the lymphatics. The main causes of the deposition are pernicious anemia, destruction of red corpuscles of poisons, such as arseniuretted hydrogen, marasmus as in alcoholic tabetics, leading to the pigmentation of many organs, and finally hemorrhages and hemorrhagic exudates from which the hemoglobin is absorbed. The hepatic deposition is often accompanied by similar changes in the spleen. Kretz notes its absence in severe anemia from carcinoma, tuberculosis and suppuration, in repeated loss of blood in most infectious diseases (except typhoid), in which it only seems to appear as a result of extravasation. It is curious also that in mitral disease hemosiderin can be detected in the lungs, but not in the liver, although both are similarly congested. The deposition of the iron in the liver is marked in pernicious anemia and in typhoid, but especially in the pigmented cirrhotic liver of diabetes. The importance of chronic intestinal intoxication as a cause of alterations in the blood is difficult to estimate, but the author considers blood changes as the main cause of the deposition in cirrhosis of the liver. The deposit disappears slowly when its cause has ceased to act; part of the iron is excreted in the blood, part removed by the lymph, and the remainder elaborated on the spot, the liver acting as a storehouse for it.
—Centralbl. f. allfem. Path., 1897 No. 2.

DELAYED LABOR.

In that common class of cases of delayed labor in which no mechanical obstacle exists to delivery various remedies are recommended to either intensify the pains or to subdue them for the time being until after a refreshing sleep the patient has regained her strength. According to the character of the pains, therefore, the administration of oxytoxics or sedatives and hypnotics is indicated. Dr. J. F. Edwards, of Philadelphia (Daily Lancet) has recently offered the following valuable suggestion for the treatment of cases of delayed labor:

"A single dose of 20 grains of phenacetine has done us yeoman service in simple, uncomplicated cases. A patient with a neuralgic tendency gets far more relief if one-third or one-half a grain of morphine be given with it, by the mouth of course. This rarely fails either to change the character of the pains for better or stop them for a time. In the latter event she generally sleeps a while and wakens refreshed. The parturient process, interrupted, begins at once; abnormal conditions do not occur and the labor terminates in a comparatively short time. If the heart's action be feeble a few grains of caffeine added to the dose might tend to prevent undue depression from the

coal tar product. This we believe to be unnecessary, however, long familiarity with the famous antipyretic having failed to convince us of anything save of its value and safety."

CHLORALAMID.

Dr. Reynold W. Wilcox, New York, says: "Chloral is the most popular hypnotic, but it is one which most frequently gives rise to habit.

"There is a safe derivative of chloral, however, chloralamid. The introduction of the amide radical neutralizes to a considerable extent the depressing action on the heart. It is fairly insoluble, and is therefore more prolonged in its action. It is far safer than chloral. It is difficult to form a habit with chloralamid, yet I know of one instance in which the patient developed the habit after taking it without my knowledge for a year. The habit was cured without great difficulty.

—Post Graduate.

CONTRACTED KIDNEY IN CHILDREN.

L. Bernhard, of Baginsky's clinic, refers to the relation between acute infective diseases and the kidney. Animals injected with pure cultures of diphtheria show parenchymatous changes in the kidneys, and this bears out what has been found in diphtheria in human kidneys. Any experimental investigation with scarlet fever poison has not been possible. In the scarlet fever nephritis the changes are chiefly interstitial, but both in diphtheria and scarlet fever the different forms of nephritis are not always pure. When the two diseases are combined then severe parenchymatous lesions and interstitial changes in the shape of a glomerular nephritis are found. Ziegler's view that granular atrophy of the kidney is due to a primary change in the glomeruli throws much light on the subject, but according to this writer there is a group of renal atrophies unconnected with circulatory changes. As both in acute and chronic nephritis these changes in the glomeruli occur, so in both atrophic processes may arise, sometimes local destruction of glomeruli and overgrowth of connective tissue may be found in kidneys where there is no diffuse interstitial change, or indeed, any severe lesion. The author looks upon this as being a partial contraction of the kidneys owing to a past nephritis. He then records two cases of contracted kidney: (1) A boy, aged 14, died of pulmonary phthisis. Here there were marked interstitial changes in both kidneys. The surface of one was smooth, but that of the other granular. The process in both kidneys was the same, but more advanced in one of them. There were three causative factors in this case: (a) the tuberculous virus, (b) the severe anemia, and (c) the circulatory disturbance produced by the lung disease. (2) A boy aged 3 died from complications of measles. The one kidney was much larger than the other. In the larger kidney there were small calculi present in the chalices. In the smaller kidney there were marked interstitial changes, and the pelvis was dilated. The author thinks that the contracted kidney here was due to calculous disease and was secondary in character. He refers to another case in which a contracted kidney existed in all probability along with lardaceous disease. The symptoms of contracted kidney are almost the same in the child as in the adult. The common causes of contracted kidney in the adult are mostly absent in children, namely, alcohol, lead and uric acid. Atheroma of vessels is rare in children, but has been observed. Syphilis is certainly a causative factor, as well as hereditary influences. Of course the disease must be rare in children. It is important to recognize the early symptoms, and thus the nephritis complicating the acute infective diseases must not be lost sight of. The nephritis complicating gastric and intestinal affections must also be borne in mind. After acute illnesses the urine must be repeatedly examined, and with the knowledge thus gained the commencement of the contracted kidney may be recognized and perhaps warded off.

—Deut. med. Woch., May 27, 1897.

A "NEW" SYMPTOM OF FACIAL PARALYSIS.

Bordier and Frenkel call attention, they believe for the first time (though it was described briefly by the late Dr. Hilton Fagge), to a symptom which is observed in severe peripheral paralysis of the portio dura. This consists in the fact that when the patient tries to close the eyes while looking attentively at an object the eyelids on the sound side close firmly, while on the paralyzed side there is very slight narrowing of the palpebral fissure, and the eyeball is turned upward and then slightly outwards. The authors consider the chief importance of this symptom to be in prognosis. Thus it is marked only in cases where the R. D. is complete. Where, however, the R. D. is partial—that is, consists in diminishing faradic excitability—or absent, and the affected lids can be closed fairly well, the patients can prevent the upward movement of the eyeball by fixing an object attentively. Such cases are slight and easily curable. It is also useful (1) from a diagnostic point of view, as it is never present in central paralysis of the portio dura. More easily recognized differences are, however, always present. (2) To follow the progress of the case, since the deviation of the eyeball becomes less and less as the R. D. becomes less marked. In fact, the physician can learn almost as much about the progress of the case by this symptom as he can by electrical testing of the muscles. The upward and outward movement of the eyeball is produced by the inferior oblique, and the special association of this muscle with the act of forcible closure of the eyelids may be explained automatically if we accept Mendel's theory that the upper nucleus of the facial nerve really belongs to the group of nuclei for the common oculo-motor nerve in the floor of the Sylvian aqueduct, while the nucleus for the fibres to the inferior oblique is the most posterior of the lateral group of nuclei of the oculo-motor, and therefore nearest to the nucleus for the fibres for the orbicularis palpebrarum.

—Sem. Med., September 8, 1897.

RHEUMATIC ENDOCARDITIS.

Singer summarizes the state of our knowledge as to the relations of this affection. He accepts Hueter's theory that the joint symptoms in rheumatism are due to a toxin conveyed to the periphery in the blood. The primary lesion sometimes is, but more often seems to be, an endocarditis, and the primary infection and seat of entrance of the cause of the endocarditis is frequently by way of the tonsils. Of this he gives several illustrative examples. He finds that the endocarditis is not due to a single etiological factor, but may be inflammation resulting from the presence of various organisms in the blood. These are most often streptococci and staphylococci. Endocarditis is hence in this sense a pyemic affection, having not only an etiological similarity to true pyemia, but resembling it also in the tendency to hemorrhages and metastases, etc. Endocarditis is inseparably related to articular rheumatism; it is the result of the most frequent and most important visceral localization of the rheumatic virus, and generally, as far as can be ascertained by clinical observation, follows the joint affection, which in some cases it may, however, precede. Between tonsilitis and endocarditis the same relations can be established as between tonsilitis and rheumatism, so that an apparently primary endocarditis leading to rheumatism may itself develop as a sequela of tonsilitis. From the clinical point of view that associated with rheumatism is the most frequent form of endocarditis. In most cases of endocarditis pus cocci are found to be the cause. Considering the close relations between rheumatism and endocarditis, and their frequent concomitance, it is in the highest degree probable that endocarditis is but a local manifestation of rheumatism, and that their exciting causes are identical. The author has frequently demonstrated the presence of pus cocci in articular rheumatism, and is inclined to attribute to them an etiological significance.

—Wien klin. Rundschau, 1897, No. 39.

THE INTERNAL SAPHENA VEIN AND VARICES.

Delbert maintains that in varices of the lower limbs which rupture or are accompanied by ulceration the valves in the internal saphena vein are always incompetent. This is true also when there is no dilatation of the saphena. Thus in one case where even at the operation (under cocaine) the vein was found to be of absolutely normal size, the author demonstrated this fact by placing manometers in connection with the proximal and peripheral portions of the cut vein, when the pressure rose to 2 cm. of mercury in the central part. This alone proved that the valves were incompetent, as the pressure ought to be zero. The exact figures in the central and peripheral ends respectively were 1.6 and 3.0 while lying down, and 16 and 6 cm. of mercury while standing up and straining. Reasons are given for believing that varicose ulcers are due to differences of pressure in the vein caused by valvular incompetency, and not to arterial sclerosis or to lesions of nerves. This incompetency acts (1) by allowing the venous pressure to equal that in the arterioles, through which capillary circulation is arrested and nutrition suffers; (2) by the formation of a circulus venosus in which the blood loses more and more its nutritive qualities. This venous circle has been demonstrated by Trendelenburg. The blood in the saphena following a centrifugal instead of a centripetal course meets in the leg with the anastomoses between the superficial and deep veins, in which the valves are arranged so as to allow the current to set only from the superficial to the deep, and being under pressure flows into the tibial and peroneal veins, whence it goes by the popliteal vein into the femoral. But at the level of the junction of the saphena with the femoral a portion of the blood flows back into the former and goes the round again. Delbert classifies varices as (1) varices with high pressure, which are those caused by incompetent saphena valves, and generally begin in the thigh, and (2) varices with low pressure, which occur when the saphena is intact, and generally begin in the leg and cause but little trouble. The presence or absence of dilatation depends on the condition of the walls of the veins rather than on the venous pressure. The treatment of high pressure varics consists in preventing the blood from flowing from above downward by ligaturing the saphena in two places and excising the intervening portion. Care must be taken to do this above any large collateral branch, otherwise the operation may fail. The radical cure of varices is a myth, but the above operation gives splendid results, high pressure being converted into low, and troublesome or dangerous into slight and unnoticeable varices.

—Sem. Med., October 13, 1897.

THE DIFFERENTIAL DIAGNOSIS OF INTESTINAL OBSTRUCTION FROM GALL STONE AND OF APPENDICITIS.

Kolliker reports the case of a woman aged 58, who came under his care with fecal vomiting and other symptoms of acute intestinal obstruction. The patient had on previous occasions suffered from appendicitis and also from biliary colic. As the appendicitis was the more recent affection and a swelling could be made out in the ileo-cecal region, and also as no pain had been felt in the region of the liver for some time, the author came to the conclusion that the obstruction was due to perityphlitic exudation. On performing laparotomy, however, he found that the cecum and appendix were enclosed in a mass of firm adhesions, and on following some much distended loops of small intestines he came on a firm body which completely obstructed the intestinal canal. This on removal, through an incision made on the convex surface of the gut, was found to be a gall stone measuring 4 centimetres in length and 2 in breadth. Reference is made to a case recorded by Sonnenburg, in which a similar difficulty was experienced in determining the cause of acute ileus. Kolliker, while acknowledging that in such cases it would always be found difficult to make a correct diagnosis before the abdomen has been opened, suggests

that mobility of the supposed perityphlitic exudation and absence of fever might lead the surgeon to expect an impacted gall stone rather than obstruction resulting from appendicitis.

—Centralblatt fur Chirurgie, No. 42.

PAINFUL PERITONEAL ADHESIONS.

Nove-Josserand and Goinard relate three cases in young women on whom operations on the internal genitals were succeeded by pain which continued until a second abdominal operation was performed, and division of the peritoneal adhesions was followed by the relief of pain. The authors give a general account of peritoneal adhesions that cause pain, usually due to inflammation of one of the abdominal viscera. They may be set up by laparotomy, but it does not appear probable that contusion of the abdomen, apart from inflammation, has, as Reidel has suggested, set up intraperitoneal adhesions. In addition to giving rise to acute and chronic intestinal obstruction, adhesions may cause much pain. The character of the pain is variable; thus it may be fixed in position and continuous, and not preserve any relation to intestinal movements, or it may be intermittent, resembling colic and preceding defecation, after which physiological act it is relieved for a time. Adhesions may also become more painful during menstruation. By interference with the intestines they may produce constipation, and adhesions attached to the bladder may give rise to cystitis and dysuria. With regard to operative interference, the diagnosis being difficult, the adhesions are sometimes only discovered on opening the abdomen. If their presence be suspected sufficient time should be allowed to elapse, since spontaneous absorption may occur, but if after months of patience the pain gets worse, operation is justified. Against the objection that operation itself is likely to give rise to fresh adhesions the authors refer to their own good results, and advise, besides scrupulous antiseptic precautions, that after the operation the intestines should be kept in active peristalsis by purgatives and enemata. When the abdomen is opened, if the adhesions be in the pelvis, the position of Trendelenburg will be found to be useful.

—Lyon Medical, Nov. 14, 1897.

VIRGINIA HOT SPRINGS.

(By J. R. CLAUSEN, A. M., M. D.)

In the warm heart of the Virginias, at an elevation of 2500 feet above the level of the sea, and environed by mountains whose verdure-crested tops are hidden in the clouds that linger about them, as though loth to leave so charming a spot, is situated the beautiful Hot Springs Valley of Virginia, better named "The Valley of Health.'

Here nature has done her best to charm the eye, as well as to restore to the disease-racked body that greatest of earthly blessings—perfect health. On every side, at every season, the scenery is grand, picturesque, richly-colored and impressive. A paradise where the blasting hand of winter never falls with devastating force, and where the fierce heat of summer is a thing unknown. Blessed with a climate wholly exempt from moisture, and a temperature free from extremes in summer and winter alike, exercise in the open air becomes ideal pleasure never tired of; enervation is out of the question; incentive and inspiration follow every movement, and the only after effects to the greatest exertion are a healthy appetite and ferfect rest,

But all this is but the wrapper about the true germ of health to be found in this wonderful valley—namely its Healing Springs.

Such they were named years ago by those who dwelt about them. Years before the world at large knew of their existence, when this out-of-the-way mountain region could be reached only by weeks of travel and mountain climbing, the few who braved the fatigues of the journey and bathed in and drank its waters came back to bear witness to the wonderful curative powers of these Springs of Health hidden away in the mountain fastnesses of old Virginia. Year by year since then their fame has grown, till to-day they are the Mecca for thousands of

sufferers from all parts of the world, for the story of their marvelous cures has penetrated to every quarter of the globe.

From these early days till now there has been no change in the volume, temperature, character or curative powers of these health-giving waters, and their undeviating conditions give assurance of the absolute uniformity of the mineral qualities of the water at all times, and of its unchanging value as a curative agent. Analyses made as early as 1835 agree in all material points, with the analysis recently made by Dr. H. Froehling, Analytical Chemist, Richmond. It is as follows:

Temperature, 84 degrees F.

Magnesium Carbonate..	3.13867	grains
Calcium Carbonate.....	20.70289	"
Strontium Carbonate...	.09331	"
Barium Carbonate.....	.00699	"
Iron (Ferrous) Carbonate	.03033	"
Manganous Carbonate..	.01225	"
Zinc, Lead, Copper.....	Trace	"
Magnesium Sulphate...	5.73208	"
Potassium	1.82069	"
Sodium	2.95556	"
Sodium Chloride.....	.68232	"
Sodium Bromide.....	.00408	"
Sodium Iodide.....	.00017	"
Sodium Phosphate.....	.00933	"
Lithium Chloride.....	.05190	"
Rubidium	Trace	"
Calcium Fluoride.....	Trace	"
Alumina	.04316	"
Silica	1.36697	"
	36.65070	
Carbon Dioxide combined with Mono-Carbonates to form Bi-Carbonates	10.75326	
	47.40396	

Carbon Dioxide Gas, free, 10.56 cubic inches. Sample of water contains 231 cubic inches per U. S. gallon.

But while the waters have undergone no change, other conditions have. From an almost inaccessible mountain fastness the valley has been changed to a most delightful mountain resort, easy of access by rail and traversed in every direction by well-constructed roads and boulevards which open up to the visitor a succession of constantly changing mountain views not excelled by any scenery in the Alleghenies, beautiful hotels have been constructed and supplied with every appliance for using the waters to the best advantage. Resident physicians of high standing in their profession, and thoroughly familiar with the action of the waters under differing conditions, are within ready reach, and everywhere luxury and comfort have been used to gild nature's gold.

In addition to the Boiling Spring, the water from which is used in the Bath Houses for external application, and the Healing Springs, the analysis of which we have already given, the valley is dotted with mineral drinking springs of special value in the treatment of various forms of disease. Among them as being most important may be mentioned the Soda-Lithia, the Magnesia, and the Alum Springs, all containing mineral deposits that make them invaluable as curative agents.

These waters, fresh from the caldron of Nature's Great Laboratory, have been found especially efficacious in the treatment of gout, rheumatism, rheumatic gout, nervous diseases, sciatica, neurasthenia, nervous prostration, dyspepsia of various forms, early stages of locomotor ataxia, old joint injuries, diseases of the liver and kidneys, disorders peculiar to women, albuminuria, where there is no degeneration of the kidneys; nasal and gastro-intestinal catarrh, functional heart trouble and chronic inflammation of the bowels.

The Hot Springs of Virginia are situated on the branch of the Chesapeake & Ohio Railway, the run from Philadelphia being made in about eleven hours. Pullman compartment sleeping cars run through without change, and interesting scenery, well-ballasteed roads, perfect rolling stock and courteous attention contribute to make the trip a pleasant one.

The publisher of "The Times and Register" is in a position to fully substantiate all that was said about the springs and the valley in which they are located, and will cheerfully give any further information relative thereto that its readers may desire.

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Original

A CONTRIBUTION TO THE TREATMENT OF ASPHYXIA NEONATORUM.

BY RICH. HOGNER, M. D.,
Boston, Mass.

Ever since Cazeaux declared so emphatically, in 1850, that asphyxia neonatorum is caused by an obstruction to, or cessation of, placental respiration, many attempts have been made, the "causa morbi" being kept clearly in mind, to secure a return of respiration by one means or another to the apparently lifeless child. No doubt attempts to revive the child were instinctively made in the distant past whenever and wherever a little human life was esteemed precious, but Cazeaux was the first to employ a scientific method. All such attempts (and the modifications are well-nigh innumerable) can be comprised in two classes—external irritation and artificial respiration. The first class being employed to secure, by reflex action, the act of respiration through the centripetal nerves. The latter class is employed with a view to securing the oxydation of the blood.

B. S. Schultze, of Jena, Germany, the indefatigable and eminently successful explorer of this subject, says in his article entitled, "Uber die beim Scheintod Neugeborener Vorliegenden Indikationen" (Centralblatt fur Gynakologie, No. 37 P. 2),

that the indications for the pale, relaxed condition of asphyxia are restoration of the extinguished reflex action of the medulla; also, he says, "We can accomplish this only by furnishing it with oxydated blood," and "this is only possible through artificial respiration, and, if possible, a simultaneous promotion of circulation of the blood."

It may justly be questioned whether Schultze's expression is wisely chosen, whether reflex action can be recalled after it is once "extinguished;" for, where death has actually taken possession life can claim nothing more; however, his meaning is correct—namely, that when the reflex action of the respiratory centre has sunk to a minimum it is only by means of oxydation of the blood and promotion of circulation through artificial respiration that life can be saved.

It is a fact that the best means of reviving a person asphyxiated by drowning, by illuminating gas, by chloroform, or by poisoning with ether is artificial respiration. But just as one cannot delay its use till the last minute, so in the case of the asphyxiated new-born, one must not postpone too long the employment of this remedy. Many doctors do postpone the use of artificial respiration for the "neonati," because the method, especially that of Schultze, seems so "heroic" and violent; whereas, if there was a more comfortable, less agitating method, the case would be quite different.

Such a method I have developed and used for a year, and now take the liberty of presenting it to you.



HOGNER'S POSITION AT THE TREATMENT OF ASPHYXIA NEONATORUM.

The operator seats himself on a high chair; has a bath tub of lukewarm water placed on the floor at his right hand, with vessels of both hot and cold water within easy reaching distance. He holds his legs together—somewhat bent at the knees—and in an inclined plane. He lays his left arm (if he be right-handed) with the "palma manus" turned upwards upon the "femores," so that the wrist of the hand rests between his knees, and the open hand, with the fingers spread, is free in the air. The child is laid head downward on its back along the operator's left arm, so that the head and shoulders can be supported by the fingers and the infant securely held. The child's body must be sufficiently inclined downward so that the phlegm, oedema, etc., can easily run out through the nostrils, and its little arms must be outstretched and hanging backward and downward sufficiently to hold the pectoral muscles in the greatest tension, bringing the chest into the maximal position of inspiration. The operator now lays his right hand, with fingers distended, down over the child's breast and abdomen, so the tip of the middle finger rests on the throat, the index finger and the ring finger on the subclavicular regions, and the thumb and little finger in the armpits. By pressing with the fingers of the right hand on the chest and with the palm on the abdomen, artificial expiration is induced, followed, as soon as the pressure is removed, by an automatic inspiratory movement, which is caused solely by the above-described wide-open, overhanging position. If the operator now continues in right tempo (preferably too slowly than too rapidly) to alternate with the pressure and the non-pressure of the hand, he can induce artificial respiration of whatever rapidity or depth as required.

The frothy substance, often bloody phlegm, etc., which will escape from the child's nose, can be removed by the operator or an assistant, as it appears, or one can leave it to itself, because the position the child occupies, with head downward, prevents these secretions from being drawn into the windpipe.

Between the breathing movements I am accustomed to try to stimulate the tone of the heart by means of delicate percussions on the praecordial region in rhythm with the heart beats, which are most easily made by means of the middle and ring fingers without otherwise changing the position of the right hand. It is well known that there is a similiar movement employed in Swedish medical gymnastics to great advantage in cases of heart failure, a movement which has proven its mechanically reflective influence on the action of the heart, which becomes stronger, also slower, or more rapid, according to the tempo of the movement.

The position of the child is now and then changed to an upright one, partly to empty the bronchi, which has not become drained by the child's downward position, and partly to relieve the auriculi of the heart, at which time, if it seems advisable, the operator dips the child into the bathtub beside him, into the hot water, and then cold water is sprinkled on its breast, etc.

In employing this method the position of the physician is so comfortable that he can continue the operation uninterruptedly even for more than two hours, which should be, according to authorities, the shortest length of time generally to devote in efforts for resuscitation of the infant before hope is abandoned. During the process the child undergoes a drainage of most of the respiratory tubes. All necessary manipulations can easily be made, and at the same time the anxious parents or friends are not distressed by methods that seem cruel to the uninitiated, such as are the swinging of the child in the air, the holding of it by the feet head downward, etc.

As for subcutaneous injections as stimulants to the heart action of the new-born child, alcohol, ether and oil of camphor have been recommended. For my own practice I prefer the physiologic (or even stronger, 0. 6 to 2 per cent.) salt solution, from a few drops to one-half c. cm. at a time. Equally good with this is perhaps an injection of nitroglycerine, recommended by Dr. J. R. Scott, of Clay Center, Kansas, in

the Western Medical Journal for March, 1897. The Doctor has written me a letter about the subject, which I take liberty to quote:

"I will say that injecting nitro-glycerine is original with me. Others may have used it, but I have never seen its use advocated by any one. My theory when confronted with a case was for a powerful, rapid stimulant that would act through the nervous system. The case was urgent, and nice calculations were not to be thought of, so I took a tablet of 1-100, put it in my syringe, which holds 60 m., expelled one-half of the solution and filled the syringe again with water. Of this solution I used 5 m., which equaled 1-2400 of the drug. This is about the rule I follow. It is a good thing."

As to nitro-glycerine injections, I have never made use of them, either on adults or on children. On the other hand, I have often used injections of salt solutions and always with, at least, instantaneous effect.

In illustration of my method numerous cases could be cited, from the simplest to the most severe, but as they are like other cases of asphyxia neonatorum, and as the treatment was the above-described, artificial respiration, heart percussion and use of water of different temperature, it is only necessary to add that every time this method has been employed the result was a happy one, with a single exception, where even Schultze's swinging was added, and where the treatment failed.

In treating asphyxia neonatorum many physicians make themselves very uncomfortable and waste much strength by taking a variety of positions and hurryings from one method to the other. The method here described has been of great service and comfort to its author. May it prove of advantage to any who may honor it with a trial!

PHARMACOLOGY AND THERAPEUTIC INDICATIONS OF TRIONAL.

(BY DR. M. FONTENOY.)
Presse Medicale, Paris, France.

Trional was discovered in 1890, by Baumann and Kast. After experiments upon animals and healthy persons it was administered to the sick, and soon became recognized as a nerve sedative and was awarded a place in the therapeutics of nervous affections. Nevertheless, the rationale of its action, and hence its indications, is yet so little known that it will be useful to present a collective study.

After their discovery Baumann and Kast experimented with trional upon animals, their experiments being repeated by Horvath, Raimondi and Mariottini in 1892. Barth and Rumpel were the first to employ it clinically in the General Hospital of Hamburg, and were followed by Schultze, of Bonn; Horvath, of Buda-Pesth; Schafer, of Vienna, and others. Bellamy studied its effects in delirum tremens, and Claus its administration in children. In France, the observations of Perier, Duguet, Hirtz, Gaillard and the very interesting thesis of Boudeau have contributed to the knowledge of its effects.

From a chemical point of view trional is a disulfone related to sulfonal. It occurs in the form of small, brilliant crystals readily reduced to a powder by the pressure of the finger, and melting at a temperature of 76 degrees C. It is soluble in 320 parts of cold water and in 33 grammes of alcohol at 95 degrees. Its solubility is increased in hot water,

hot milk, ether and benzine. It is odorless, and the solution has a slight bitter taste.

In its physiological action trional presents some points of great interest: 1. Absorption is very rapid; so prompt indeed in certain cases that the effect is developed only ten minutes after its ingestion. 2. It is totally destroyed in the organism, and cannot be detected in the urine, either pure, that is to say in the form of crystals, or in combination. It behaves, on the whole, like sulfonal, with the difference that it is destroyed more rapidly and completely.

Baumann and Kast have shown that this product owes its hypnotic property to the ethyl group, which also is present in sulfonal and tetronal. These authors administered it in a dose of 3 grammes in warm milk to a dog weighing 9 1-2 kilos, at seven o'clock in the morning. At the end of twenty minutes the animal appeared fatigued and sleepy. After three hours it was in deep sleep and did not respond to the loudest calls. It remained thus for four hours and then gradually revived. At 4 o'clock in the afternoon it stood up, and at 9 in the evening all symptoms had vanished.

Raimondi and Mariottini experimented upon frogs, rabbits and then upon dogs, and obtained the same results. They observed that its effect was exerted upon the brain, for the rabbits after receiving 0.3 to 0.5 grammes, presented a paralytic state with retarded heart action, and were then attacked by convulsions, like those after injections of strychnine.

Bakofen showed that the action of trional was much more rapid than that of sulfonal. In rabbits, sleep occurred twenty-five minutes after the administration of trional, while it was not developed until the end of two and one-half hours with sulfonal.

In the course of their experiments, Horvath and Stieglitz investigated the effects of trional upon themselves. Horvath experienced at the end of ten minutes a marked tendency to sleep, and especially a feeling of falling. Stieglitz took 2 gm. three hours after a meal, and at the end of about an hour was plunged into a deep sleep.

When administered to a patient, trional exhibits above all, the character of a sedative hypnotic, without any analgesic action. Sleep occurs in one-half to one hour after its ingestion, sometimes in less than that time, so that Von Swetlin, of Vienna, recommends that it be not given to patients until they are in bed. The sedative effect is generally very prompt. Sometimes, however, sleep is preceded by feelings of lassitude and vertigo. Whatever be its mode of development the sleep resembles physiological sleep, with normal respiration (Boudeau). Awakening is also natural, and but rarely disturbed by slight malaise, with headache or vertigo, phenomena, which are only transient.

Its action upon the different organs is practically speaking nihil. It acts neither upon the heart nor circulation. The blood corpuscles are not altered; spectroscopic analysis of the blood does not give any result. Horvath, it is true, observed in animals, an accelleration of the pulse, followed by a retardation attended with a chill, but without the least injurious effect. It has practically no action upon the digestive tract. Thus, Pelanda and Cainer cite the case of a patient suffering from alcoholic gastritis with frequent vomiting, in which trional was given without any accident, but acted beneficially on the contrary. In a case of morphinomania of Mattison, however, it provoked vomiting, but here in a dose of 2.50 grm. Claus thinks that trional has a favorable action upon the digestive organs, and Springer that it stimulates the appetite. A cancerous patient cited by Boudeau, in his thesis, had observed that his appetite was restored. What conclusion can be drawn from these contradictory statements except that trional has not any well marked effect upon the digestive tract?

In cases where abnormal effects have been noted it would seem that the drug has been employed in very large doses, or for a prolonged period. It is with trional as with the greater number of medicaments.

The manner in which it is tolerated depends upon the different factors—the age, constitution and nutrition, the general condition and sex of the patient. As soon as the least sign of intolerance manifests itself the administration of the drug should be at once suspended.

Trional, like sulfonal, does not influence the metabolism even when given in comparatively large doses. The variations that have been noted take place within normal limits, and the absence of any action of trional, as well as sulfonal, upon the metabolism of albumin within the organism, constitutes a great advantage over chloral hydrate without taking into account the deleterious effect of the latter upon the heart and vessels (Schaumann).

Habituation to trional does not exist, contrary to what is true of sulfonal and tetronal. All authors are in accord on this point. On the other hand, its cumulative action is marked; as was shown by a very interesting observation of M. Duguet in the case of a tuberculous patient in his service, who, after taking one gramme of trional daily for three days, slept the first night four hours, the second six hours and the third ten hours. This explains, perhaps, why other hypnotics are more active when administered on the nights following the suspension of trional.

Trional does not seem to possess any marked degree of toxicity. According to Raimondi it would seem to be more toxic than sulfonal, but Collatz cites a case of attempted poisoning, without success, from ingestion of 8 grammes, and Kramer reports the case of a pharamaceutical student, a morphine habitue, who took 16 grammes and recovered within a few days. All these were instances of acute poisoning. There is, however, a chronic and perhaps more serious intoxication—a condition which is always favored by certain factors, such as the long duration of the treatment without interruptions, constipation which predisposes to accumulation, sex (females seem to be more sensitive to the hypnotic action) and finally the dosage.

In what class of cases should trional be employed? There are a number.

As in a general rule, it may be employed in all forms of insomnia, particularly nervous insomnia with excitement (Bordeau). But its action is much less effective in insomnia due to violent cough (Gilliard). It is more suitable for those who sleep with difficulty than for those who fall asleep readily but awake as easily (Vogt).

The literature upon the therapeutics of the drug is abundant. Schultze experimented upon 76 insane persons. In all who did not manifest violent excitement it produced good sleep in doses of one to four grammes.

Schaefer, with doses of 0.5 to 4.0 grammes, produced a sleep varying from six to ten hours, in the course of 15 to 20 minutes. It proved inefficient only 14 times in one hundred administrations.

Raimondi obtained uniformly good results in 51 cases at the insane asylum of Rome.

Raimondi and Mariottini, who administered it in doses of one to three grammes to 19 patients suffering from insomnia due to various causes, obtained from administrations of one to 1.50 grammes in ten cases a sleep of six to eight hours, and from two to 2.50 grammes in nine other cases a sleep lasting for nine hours.

Hammerschlag observed successful results 83 times in a hundred in general paralysis, and in cocaine-morphinomania 88 times in 100. The dose varied from one to three grammes.

Pelanda and Cainer have employed the drug with success in cases of alcoholic pseudo-paralysis, where chloral had proved ineffective. The duration of sleep was six hours. The same authors obtained a sleep of eight hours from three grammes in cases of alcoholic dementia.

Bellamy has extolled its use in delirum tremens; Garnier, Pelanda, Beyer in maniacal excitement; Pelanda, Cainer, Beyer, Grunfeld in melancholia with depression.

Finally, in children, it has proved very serviceable, and Claus, Arth, Hennig, of Konigsberg, and Boudeau have observed excellent results in

chorea, epilepsy, infectious diseases, and, above all, in pavor nocturnus. On the other hand, the results derived by Pelanda and Cainer in hysterical dementia were not good.

Boettiger lays stress upon the point that trional, while efficient in the cases of insomnia which we mentioned, has but a very slight effect in insomnia due to pains. Hence, it is indicated, from a surgical standpoint, in cases of post-operative insomnia without severe pain (Van Schaick); although Boudeau remarks that pain is no positive contraindication to its use, because it acts not against this factor, but against the excessive excitement of the nervous system which results from it. The only real contraindication seems to be cardiac lesions which are not well compensated.

The dosage of trional is simple; it can be administered in massive or fractional doses. In quantities under one gramme it does not give appreciable results; hence, if it is desirable to employ single doses, from 1.50 to two grammes should be given, and reduced to one gramme during the following days to avoid accumulation. This method is advised by Pelanda and Cainer.

Claus, who has made a thorough study of the effects of the drug in children, concludes that it should be administered as follows:

From one month to one year, 0.2 to 0.4 gm. trional.

From one to two years, 0.4 to 0.8 gm. trional.

From two to six years, 0.8 to 1.2 gm. trional.

From six to ten years, 1.2 to 1.5 gm. trional.

Finally, in certain cases it will be found advisable to associate trional with other hypnotics, in particular its administration (one to 1.50 gm.) in connection with morphine, 0.01 grammes, or codeine 0.02 to 0.03 gives excellent results. This also applies to its association with phenacetine or acetanilide.

The mode of administration is variable. It can be taken dry in wafers or in hashed meat. It can also be exhibited in suspension in cold milk, tea, mucilage of acacia, or better still in warm fluids, in which it is neither dissolved nor suspended, such as milk, wine, punch, etc. The best way seems to enclose it in unleavened bread, and follow its ingestion by a drink of 200 c. cm. of some warm fluid. Trional should generally be taken at least one-quarter of an hour before retiring.

Editorial

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AN OBSTINATE CASE OF ADYNAMIC ILEUS—DEATH.

The patient was a married woman 33 years of age, who, having had repeated attacks of pelvic pain, came under my observation a little over a year ago. She had never had any children, and at the time of first examination was suffering with a mild inflammatory affection accompanied with vomiting and pain over the right hypogastric region intensified by deep pressure. A diagnosis was made of appendicitis, but the symptoms not being severe, operation was postponed. She recovered in a short time and returned to her distant home. Recently she removed to Boston and again came under my observation for what was now diagnosed as a large pus tube dipping down into Douglas pouch. An operation for its removal was assented to and a double ovariotomy performed by Dr. A. H. Tuttle, of Cambridge. This necessity was obvious, because not only was a large abscess found existing in the right tube and ovary, but also the left was much inflammed. The periuterine adhesions were thick and firm. In the usual manner the patient was kept quiet for the first three days without diet. She reacted well; the temperature at no time rising over 100 degrees F. On the third day, complaining much of gas distention, an enema of asafetida was given, but with no appreciable effects. An enema of turpentine, in an emulsion, was then given through a No. 12 catheter as high up as possible, but with like failure to bring away gas. Two grains of calomel, followed by

a second dose in six hours, were then given, which remained for four hours on the stomach, that up to this time, since the day following the operation, had been rejecting everything, even water. She was therefore kept under the effects of morphine a day longer, awaiting the action of the calomel. No action of the bowels having been obtained, on the morning of the sixth day a solution containing a tablespoonful of salt was given in small repeated doses. This was apparently all regurgitated. Two drops of croton oil was then tried, followed in three hours, as no action had taken place, by a second two-drop dose. Vomiting was now quite constant, but controlled more or less by morphine and atropine. On the seventh day ten grains of calomel, repeated every two hours until forty grains had been taken, were given, followed by faradic electricity, and from which a fairly good movement was apparently obtained. Enemata were kept up during this time of milk, eggs and whisky. Stimulants hypodermatically were given at intervals. Patient seemed comfortable after movement, but weak; had not slept since the third day after operation. Much emaciated, but complained of hunger. No abnormal temperature since the third day. Pulse remained high, ranging between 120 and 140 most of the time. No symptoms of mercurialization. Vomiting now was quite infrequent, but much regurgitation took place of a dark green, bilious-looking liquid. Various anti-acids were tried without much effect. On the seventh day she took over a pint of milk and lime-water at intervals. On the eighth day, with the assistance of ten grains of chloral by enema, the patient slept fairly well. No further movement of bowels. Patient seemed better; still much regurgitation and some vomiting. Did not seem to retain long anything on stomach. On ninth day patient seemed improved in countenance, but complained of weakness. Whisky was therefore pushed and an egg and milk enema given with a little chloral once. Pulse 100. Temperature normal. An asafetida enema brought away some gas. Patient complained of a distress in her back, near shoulder blades, and vomited a small clot of blood. No hametemesis. She soon fell asleep from the effects of the chloral and slept four hours. On waking patient seemed collapsed, yet could move herself about the bed. An hour later no wrist pulse was discernible, nor any respond of the heart to stimuli. She steadily sank and died eight hours afterwards. Death was by apnoea.

AUTOPSY.

Abdomen only opened, eight hours after death. Much post-mortem decomposition was apparent throughout abdominal cavity. Peritoneal cavity was shut off nicely from wounds of operation, and no pus in abdomen. Above the abdominal opening, especially about the lower border of stomach and including the jejunum bands of old peritonial adhesions were found, showing that some years previous there must have been an active general peritonitis. The appendix was bound down firmly and contained a concretion with pus. Intestines contained a blackish, green fluid, similar to what had been vomited. Stomach not opened. No signs of hemorrhage.

Autopsy diagnosis as to cause of death; adynamic ileus complicated by bands of peritoneal adhesion across the intestines, causing fatal obstruction.

The question naturally arises: Could not these adhesions have been broken up by a second operation? Literature on the subject suggests that such operations are inevitably fatal where bands of obstructive adhesions exist. In this case the adhesions were so numerous that the probabilities are the case would have been fatal even had they been broken up at the first operation.

F. S. P.

BABY CULTURE IN NEW YORK.

According to the ancients all virtues in human natures are embodied in a new-born babe, whose innocence and helpless dependence invariably commended sacred care, as exemplified in the divine exhortation, "Suffer ye little children to come unto me." The dwellings of the Patriarchs were deemed sanctified, when adorned by a child, but when a baby came, either too soon, or not at all, there was a rift in the family circle, which clouded domestic happiness.

It is not very many years ago when the babe that came too soon was regarded as doomed, and at that period the mortality statistics of the large centres of population revealed death rates averaging 80 per cent. from this cause.

In view of these alarming facts, brains, aided by science, has sought to master this source of fatalities, and prior to the end of the '50 decade of this century, fruitless attempts were made to rear "prematures" by swaddling their tiny forms in flannels, and then surrounding them with bottles filled with hot water, but they did not survive this treatment, and the problem of baby culture remained unsolved.

The first eminent scientist to attempt to mitigate the mortality among the then increasing number of "prematures" was Prof. De Nuce, of Bordeaux. He constructed a bath-tub with double walls, the interstices of which were filled with hot water, for in such cases regular heat and a pure atmosphere is life. The infants were placed in the tub, but ultimately succumbed to the variable temperature and impure air.

Prof. Crede, of Leipsic, then followed with experiments on the line of his predecessor with slight improvement, but with no better success in saving baby lives.

Later on, Prof. Winkel, of Munich, arranged a hot bath in which the babies were laid with their heads clear off the water, but the results were fatal, because the inequalities of temperature were not overcome.

Winkel's successor in this field was Prof. Tarnier, of Paris, who built a box of heated bricks to produce a given temperature of hot air, but this, like the rest, proved to be a failure.

Prof. Auvard, of Paris, followed in a series of experiments with the Tarnier apparatus, to which he added a number of small bottles containing hot water; these necessitated frequent changes as the water cooled, and the variations of temperature were fatal to the infants.

After a study of the various processes of those who had preceded him, and the results achieved, Prof. Lion entered the list of infantile life savers, and assumed the task of providing a structure which should afford a permanent equable temperature, and a continuously pure atmoswhere.

His initial attempt to accomplish this was a wooden box contrivance, in which heat was generated by gas at the sides of the subject treated. Ventilation was obtained through circular apertures in the upper and lower portions of his structure. Although the results were very gratifying in the nurture of the babies, he discovered that the wood employed was a refuge for bacilli and microbes.

This caused him to utilize metal in lieu of wood to obviate any possibility of failure from a hygienic point of view. Together with this improvement he invented a thermostadt, in which mercury was the motive ingredient, and by which he secured a permanently even temperature. The gas in the original incubator was abandoned on account of its debilitating odor, and finally he created an automatic regulator, which permitted the utilization of any type of heat, and while reducing the size of his incubator, he has also simplified its mechanism, and it is now recognized by the medical faculty of Europe as the acme of perfect baby culture. It is impervious to bacilli, it furnishes a steady warmth of requisite temperature, and pure air is incessantly supplied by his own regulating process.

The first successful public demonstration of the value of Prof. Lion's achievement was made at Marseilles,

nearly seven years ago, where he remained for a year, and rescued several hundred infant "prematures." He left Marseilles at the invitation of the Professors of Obstetrics at Nice, and here his treatment proved to be so effective that the Lion Institute has been permanently localized by the medical faculty of that city. Shortly afterward the faculty of Lyons caused the Professor to establish an institute there, and all the hospitals have adopted his invention for the salvation of local "prematures."

The fame of Prof. Lion's apparatus had now reached Paris, and leading physicians at the French capital induced the inventor to found an infant saving institution in that city. His success here was such that the municipal government, in recognition of the boon he had conferred upon humanity, unanimously voted an annual subsidy for the maintenance of his establishment, as well as for the employment of his incubators in all the maternity hospitals in that city. The Lion Institute in Paris has reduced the annual death rate of "prematures" from 80 per cent. of two years ago, to 17 per cent. last year. It was here that American physicians touring Europe for pleasure visited the Lion Institute and urged the Professor to establish a branch of that establishment in this city ultimately, despite the large investment required for such an enterprise, Professor Lion is now here, directing an institute which for beauty, convenience and effectiveness has no superior elsewhere, and it has already a half dozen living mites, averaging two pounds each in weight, who board sumptuously with an equal number of pretty nurses, and often given in a chorus of infantile gratitude.

A branch of this enterprise will be established in the next month.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

MR. ALBAN DORAN—HERNIA OF THE ABDOMINAL CICATRIX.

Hernia of the cicatrix after abdominal section is unfortunately an accident of no great rarity. A mere digital protrusion may be kept back by pressure skillfully applied. If, however, it is suffered to attain a large size it may prove more troublesome than the disease for which the operation was performed. It may also become in itself a direct source of danger demanding surgical steps for its relief. The late Mr. Greig Smith, the loss of whom we all regret, clearly refers to the less advanced type of ventral hernia when he lays down his principles of treatment in his well-known work. Indeed, it would at first seem as though he referred to primary ventral hernia independent of any surgical wound, but he distinctly states that "ventral hernia, so-called, is simply a stretching of scar-tissue which permits the abdominal contents to escape through the parietes and to bulge outwardly under the skin." Further, in his paragraphs on hernia after operation he distinctly refers back to the same passage. Hence he is clearly speaking of surgical ventral hernia. Mr. Greig Smith continues: "There is no narrow neck as in umbilical hernia and no dissection of skin from parietes by burrowing omentum or intestine as in umbilical hernia. The hernial sac is simply stretched peritoneum; the coverings are stretched cicatricial tissue with a little fat and stretched skin. To cure this condition it is necessary to remove or push aside the redundant and attenuated tissues and bring into contact and keep in contact the thick and non-yielding parietes. To do this satisfactorily it is rarely necessary to enter the abdominal cavity." Here follows a description of his operation where the cavity is not opened.

Deeply regretting that Mr. Greig Smith, who was living when I began to prepare these notes last autumn, is no longer amongst us, I must be allowed to respectfully observe, in the interest of patients and operators, that the deceased surgeon's description of surgical ventral hernia can only apply to a very early stage of that troublesome complication. Even at that stage I should hesitate to operate without opening the peritoneum. When the hernia has developed further, so far from there being "no narrow neck" there may be a very tense narrow neck as in two of the four severe cases presently to be described. Secondary sacs and burrowing of omentum and intestine are observed in this form of rupture just as in umbilical hernia. Firm adhesion of intestine to the cicatrix is frequent. I will now give the notes of our particularly severe cases in my own practice where all the above noted complications were detected. An operation was demanded on account of those complications which were successfully relieved. I must add that I am not sanguine about the ultimate result as far as complete immunity from recurrence is concerned. The four cases simply show that hernia of the cicatrix is a serious condition.

Mr. Doran proceeds to give details of his four cases; the first:

Case 1. Hernia of ovariotomy-wound two years; large sac; secondary pouch; circular sharp edged neck with intimate adhesion of the transverse colon in the middle of the cicatrix. The second was of somewhat similar character; the third:

Case 3. Hernia of cicatrix of incision on the outer border of the right rectus for two years; enormous sac; no true neck; elongated secondary pouch with narrow neck almost strangulating the omentum; intimate adhesion of the omentum to the fundus of the sac; removal of the appendages for papillomatous disease.

The fourth:

Case 4. Double hernia of median abdominal wound; exploratory incision three years; large sac with two secondary pouches and long, narrow neck; small sac with narrow circular neck lower down; strong adhesion of small intestine and omentum to fundus of large sac.

The author describes the complicated anatomic state presented in these eventrations, pointing out the difficulty attending operations for them; a procedure, he tells us, sometimes followed by mortal consequences.

It is somewhat remarkable to note that the author never saw hernia follow the use of the drainage-tube; something which has so often been incriminated in these cases. Although, to one familiar with the pathology of hernia, this will not be surprising.

Nor is the author wedded to any special method of closing the abdominal wound, for he says, there are some without their defects. He has seen, he says, "hernia follow when the through and through section has been used, though no more frequently than when the parts were closed layer by layer."

There can be scarcely any question but the physical state of the patient, the condition of the tissues and general management of the cases, has much to do with the final results and presence of hernia after laparotomy.

—Lancet, Dec., '97.

There are few absolute rules in the practice of medicine.—Parvin, Ex.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

Current Medical Literature.

WHERE IGNORANCE IS NOT BLISS.

At a recent meeting at the Oxford House the Bishop of London spoke of the importance to boys of an elementary knowledge of the physiology of sexual function. They are exposed to temptation before they understand the importance of resisting it, and contract habits which deform all the rest of life. It is not to be supposed that knowledge will eradicate passion, but an ignorance of consequences is in many cases responsible for the hold which the passions gradually obtain. Weak at first they acquire strength if their promptings are not resisted, until they reduce the man to a state of slavery which few have the force of character to break. There is no doubt also that there is a great fascination in the unknown. Most medical men know the morbid eagerness with which laymen receive information about sexual matters. The lewdness of boys springs largely from the same sense of mystery, and these hidden things, when explained from the point of view of one who understands them, and looks at them with common sense, neither making light of them nor exaggerating their importance, lose much of their danger. Such an one knows the passion, knows the temptations to which it exposes us. It is a great help to a boy to be brought in contact with one who has this knowledge, and who at the same time will not minimise either the sin itself or the suffering which it brings in its train. Adult men are sometimes under the impression that chastity is a danger to health, and to them it is often useful to be distinctly assured that such is not the case. It is not right to give public instructions in these matters to boys. Such a course would bring obvious dangers with it. It is a question which should be discussed privately. But it is not easy to do this without whetting the curiosity, or perhaps even turning attention to a subject hitherto unnoticed. A serious interview devoted to this particular topic is open to both these objections. The best method is for parents or responsible persons to use the opportunities that naturally occur in common life, and to give the boy the information which would be naturally given if it were another topic. A boy constantly asks questions, and questions on these subjects should be answered as readily and as simply as others. He can at once be made to understand that it is not a matter for public conversation, and, if he finds no mystery made of it, it becomes a thing as indifferent as any other animal function. Unfortunately parents prefer to shift the responsibility to other persons, partly from false delicacy and partly from ignorance of the matter itself. Yet what would be quite natural in the course of daily talk becomes somewhat unnatural—and therefore, as we have said, somewhat dangerous—when it has to be the subject of a set conversation. It is better, however, that instruction should be so given than not given at all. If a boy's father does not do his duty by him, then he had better receive from his schoolmaster or from some friendly medical man such advice as they think will be of use. Above all, boys should be made to understand the difference between men and women. The lewd ignorance of schoolboys leads them to impute the same desires to women which they feel themselves; and if

a boy is taught to recognize this as ignorance, and not manly knowledge which he is apt to think it, it gives him a healthy contempt for such opinions, and a disinclination to mix with those who hold them. And, lastly, it is of the first importance that relations of confidence should be established between the boy and some sensible man, so that he may ask him any questions upon this subject which happen to present themselves, in the certainty that he will be answered fully, truly, and wisely. Since medical men have the fuller knowledge, they can in many cases fill this place, and in doing so we can confer upon the lad one of the greatest benefits he is ever likely to receive.—British Medical Journal.

CREOSOTE IN PHTHISIS.

At a meeting of the Harveiian Society of London, held on October 21, 1897, Dr. Clifford Beale read a paper on "Recent Experience of the Use of Large Doses of Creosote in Consumptive Cases."

Dr. Stamford G. Felce inquired whether Dr. Clifford Beale used creosote of any particular manufacture, as he had found the results vary greatly with different specimens of the drug, which, though occasionally well borne, was in a large percentage of cases not tolerated by the stomach. As commercial creosote is a more or less variable mixture, containing toxic cresols, paracresols, and pyrogallol, it seemed to him more rational to use a drug which, possessing equal efficiency, is of a definite chemical constitution—a condition that is fulfilled by guaiacol carbonate; in a fairly large series of phthisical patients he had found this drug well tolerated, and in suitable cases frequently beneficial. Dr. William Squire, Dr. Cleveland and others also took part in the debate.—Abstract from "The Lancet," Oct. 30, 1897, p. 1119.

EUCAINE AS A LOCAL ANESTHETIC.

F. C. Wallis, M. B., F. R. C. S., in an article entitled, "Eucaine as a Local Anaesthetic when used Hypodermically," published in St. Bartholomew's Hospital Journal, Aug., 1897, states having used eucaine B for some months past in St. Mark's and Charing Cross Hospital in nine removals of tumors, 44 rectal and two abdominal operations. The results of his experience with eucaine are most satisfactory. He has used a solution of 4 per cent. and he has never seen any signs of toxic effects, even when a considerable amount has been used. This percentage he found quite strong enough to produce absolute local anaesthesia for any small operation. He has in a large ischio-rectal abscess injected as much as three and one-half to four drachms subcutaneously without any ill effects at all. The average amount required for a small operation was from one to one and a half drachms of the four per cent. solution. One of the great boons this drug possesses is that the operator need not be at all nervous about using sufficient, and if the desired anaesthetic effect is not produced by one drachm, the second or third can be used with every confidence as to the safety of it. He frequently used it in the out-patients' room for abscesses, and found it most useful, both in hospital and private work, for removing the redundant skin which is sometimes left after operations for haemorrhoids. He has no after-effects to record, and concludes that eucaine has a great deal to recommend it.

In the British Medical Journal of November 27, 1897, Drs. W. Jobson Horne and MacLeod Yearsley described their experience with eucaine A, which they have employed in 100 cases of diseases of the ear, nose and throat. They found that the pulse was not materially affected in either rate or character, and they have not met with a case in which the drug, per se, influenced the cardiac action.

It has been stated that eucaine induces hyperaemia, and on this account the drug is inferior to cocaine, which produces an ischaemia so serviceable in investigating diseases of the nose. Upon the application of a 5 or 10 per cent. solution of eucaine to the mucous membrane hyperaemia will occur as an immediate

result; this is in the majority of cases but an initial blush, rapidly passes off, and gives place to an ischaemia, which, as seen in the nose, is generally less marked than that produced by cocaine. Upon a further application there is no recurrence of hyperaemia, and the ischaemia may be increased. In no case have we met with excessive or unexpected haemorrhage following operations done under eucaine anesthesia, such as is not uncommonly met with after the use of cocaine. This is no doubt accounted for by the action of eucaine upon the peripheral vessels already alluded to.

As regards the disturbances of sensation following the anesthetic action of the drug, more particularly in the case of the pharynx, these are not only less unpleasant and less marked than those produced by cocaine, but more transient, and, speaking generally, after the lapse of an hour from the time of application, the subjective sensations may be described as normal. Those who have experienced the effects of both drugs have expressed a decided preference for eucaine.

In concluding, the writers say:

"Were eucaine to be of no further service than to act as an efficient substitute in cases such as we have mentioned in which an idiosyncrasy for cocaine precluded an operation, even then this new local anesthetic could not be regarded otherwise than of importance.

"So far in our experience with eucaine we have not met with a case in which a single symptom supervened in the least way suggestive of a toxic effect of the drug."

We quote the following from the American Journal of the Medical Sciences, Phila., December, 1897:

"Eucaine B in Stomatology.—Drs. Dumont and A. Legrand make use of a one per cent, solution sterilized by boiling. They report seven observations, concluding that it is a good local anesthetic, producing anesthesia as rapidly as does cocaine, but which persists for a shorter period (about three times less), and that its feeble toxicity permits its safe employment in dental surgery even when practiced upon children.—Bulletin General de Therapeutique, 1897, 18 e liv. p. 545."

HYPODERMIC INJECTIONS OF OXALATE OF POTASSIUM IN PHLEGMONOUS INFLAMMATION.

Oxalate of potassium being known to have the property of preventing or retarding the tendency of organic fluids to coagulate, it occurred to Dr. G. Cavazzani, the principal surgeon of the Civil Hospital, in Venice, to utilize this property in the treatment of phlegmonous inflammation by injecting a 1 per cent. solution into the surrounding tissues so as to diminish the capillary engorgement and the plastic effusion which always exist there under these circumstances. The first case in which this plan was tried was that of a woman who had a large phlegmonous swelling which extended from the middle of the upper arm to the hand and which had been in existence for two months. The acute stage was passed and there were no collections of pus or patches of slough, but the arm was stiff, swollen, red, hot and painful. Ten injections were given into the cellular tissue around the affected portion, 30 minims in all being thus introduced. The next morning the swelling, the redness and the pain had perceptibly diminished; the injections were repeated every three or four days, and at the end of three weeks the patient was completely relieved. Subsequently Dr. Cavazzani employed this treatment in several other cases of phlegmonous inflammation with good results. Among them were two cases of phlegmasia alba dolens which rapidly recovered under the influence of the same solution, 30 to 45 minims being introduced in 10 or 12 points. In one of the cases two repetitions were sufficient; in the other three. Another case was that of a man who had undergone an operation for inguinal hernia and in whom three days afterward inflammation of the cellular tissue of a somewhat alarming character began to appear. Thirty minims of the solution were injected in eight points situated beyond and around the circumference of the inflamma-

tion, and the next day the inflammatory symptoms were found to have subsided. The only inconvenience resulting was a trifling amount of suppuration about two of the sutures of the wound. These injections of oxalate of potassium appear to be quite harmless, as no sign of poisoning was observed in any of the cases. Whether the theory upon which Dr. Cavazzani based his employment of this salt be correct or no, the fact remains that the results obtained by him are very encouraging and the treatment seems to be worthy of a trial by other practitioners.

—London Lancet.

AIROL IN THE OPTHALMIA OF NEWLY-BORN CHILDREN.

Airol having been proved very useful in the treatment of gonorrhea M. Ardin-Delteil, of Montpelier, was induced to make trial of it in a case of ophthalmia in a newly-born child, nitrate of silver which had been previously employed having appeared to increase rather than to diminish the intense inflammation. He applied a 5 per cent. airol ointment made with vaseline, leaving it in contact with the mucous membrane for 20 minutes and then washing it off thoroughly with a solution of boracic acid. After this an immediate improvement was manifest, the swelling and conjunctival secretion being greatly diminished by the next day, when a fresh application was made. The treatment succeeded in preventing suppuration, and in a week's time a successful result was achieved.

—London Lancet.

DISEASES OF THE LIVER.

A highly interesting paper on the "Prognosis and Treatment of Diseases of the Liver" has been read by Dr. Kolisch at a meeting of the Vienna Medical Club. Disease of the liver is as a rule only a part of a morbid condition such as sepsis, phthisis,or phosphorus poisoning, but there may, on the other hand, be local affections of the liver—carcinoma, for instance—which by the nature of the lesion influences the prognosis. In complicated affections of the liver the prognosis depends on the proportion of liver cells which no longer fulfill their functions and on the derangement of the normal metabolism. The secretion of urine containing bile pigment and throwing down much sediment is a grave symptom; scanty urine is more unfavorable, but polyuria shows that the state of the liver is improving. Urobilinuria is a very important sign. Clinical experience shows that a great many forms of jaundice begin and end with it, but that bilirubinuria prevails during the intervening period. Urobilin is not formed in the liver, but is produced in the intestine by the reduction of the bilirubin, which originates in the liver and is absorbed by the intestine. The theory that urobilin is formed when the liver is diseased is disproved by the fact that a minute amount of urobilinuria is normal, and also by the occurrence of bilirubin in the urine in cases of acholia. But the theory that urobilin is formed in the intestine does not explain some cases of urobilinuria in diseases of the heart, in fever, in the onset and disappearance of jaundice. Dr. Kolisch's theory of urobilinuria is as follows. The bile is always being secreted by the liver and absorbed by the intestine (circulation of the bile). The urobilin which is normally formed in the intestine from bilirubin also circulates in the same manner. Urobilin is more easily diffusible than bilirubin, and under ordinary circumstances a small portion of it makes its way through the liver cells and appears in the urine (normal urobilinuria). Under pathological conditions a slight impairment of the function of the liver cells permits the passage of an increased amount of urobilin, which appears in the urine (pathological urobilinuria), whereas the bilirubin is retained. Dr. Kolisch's experiments show that the so-called cholemic coma is due to an increase of the ammonia compounds, especially carbamic acid, circulating in the blood, and he therefore believes that the amount of albuminous food should be reduced in serious disorders of the liver such as cirrhosis with destruction of the liver tissue. In order to promote the elimination of toxic substances from the organ-

ism he administers diuretics, especially those which are antiseptic and act on the bowel. Medicines which assist the disintegration of albumin —salicylic acid for instance—are to be avoided. As a cholagogue he uses ox-bile and its preparations.

—London Lancet.

HAY FEVER.

At a meeting of the Vienna Medical Club Dr. J. Muller discussed the question of hay fever. He said that patients were able to predict an attack and that in a great many cases it occurred yearly. It could be proved that pollen entering the respiratory tract was the cause of the disease. The patients are very nervous and a great many show gastric symptoms. The attack begins with itching in the nose or sometimes in the eyes, accompanied by convulsive movements of the eyelid. This was followed by spasmodic sneezing and a profuse secretion of serous fluid from the nose. The mucous membrane of the nose was swollen, the conjunctiva was injected or chemotic, and sometimes there were edema of the eyes, vertigo, photophobia, pain in the forehead, in the temples, at the back of the head, and in the teeth. There is a causal relation between hay fever and gastro-intestinal symptoms. Dr. Muller adopted energetic local treatment of the nasal mucous membrane, which he touched with a 20 per cent. solution of nitrate of silver, and after some days irrigated it with seven litres (12 pints) of Karlsbad water, followed at last with a mixture consisting of three grammes each of menthol and resorcin and 14 gramm menthol and resorcin and 14 grammes of spirit of wine. The result was the detachment of the diseased mucous membrane and disappearance of the secretion.

—London Lancet.

CREOSOTAL.

BY PROF. DUJARDIN-BEAUMETZ,
Of Paris.
(Abstracted from the Dictionnaire de Therapeutique.)

By the union of carbonic acid with creosote there is produced a body neutral in reaction, bland and oily to the taste, odorless, entirely without irritatant effects upon the mucose, and which can be absorbed in large dose without in any way deranging the stomach. This new compound, called Creosotal, is as active, weight for weight, as creosote itself; which is readily conceivable, as nine-tenths of its mass is composed of that substance. Creosote itself contains guaiacol, cresol, phlorol, dimethylether, and propyl-pyrogallol; all of these form carbonates, and this mixture of carbonates forms the new drug.

Ceosotal is a viscid liquid at ordinary temperatures, becoming more fluid under the influence of moderate heart. Its color is amber, like that of the creosote from which it is derived; it has no odor when pure, hardly smelling of creosote at all. Its density at 15 degrees C. (59 degrees F.) is 1,165, a little heavier than that of water. It is insoluble in water, glycerin, and cold alcohol; it is soluble, without heating, in all proportions, in alcohol at 95 degrees, and in ether, chloroform, and benzine. Boiled for a considerable time, it turns a little brown.

According to the chemical formule 100 parts of the Carbonate of Guaiacol contain 90 parts of guaiacol, and 100 parts of the Carbonate of Creosote contain 92 parts of creosol.

It interferes in no way with the digestive functions, and is absorbed in large doses, 10, 15 or 20 grams (one-third, one-half or two-third ounces) daily, without trouble. In the intestine it splits up into its component parts, creosote and carbonic acid; thus there is a gentle but continuous action of the drug. The creosote can be demonstrated in the urine half an hour after the ingestion of its carbonate.

Creosote is admittedly the most active agent that we possess to combat tuberculosis, but its causticity prevents its exhibition save in very small doses. This grave drawback does not exist in the neutral Creosotal, hence it can be given in doses quite inadmissible for the crude drug. Its use is, therefore, a very important advance in the treatment of the tubercular diseases.

ACTIONS AND USES.

Creosotal, absolutely neutral, and without either the disagreeable odor or the burning taste of creosote, is so feebly toxic compared with the pure drug, that it can be given without admixture, by the teaspoonful. It is well borne, even by the most delicate and fastidious patients.

Sommerbrodt and many others are decidedly of the opinion that creosote is most effective in the largest dose that can be borne; and it is the impossibility of administering such large doses by the stomach that led Burlureaux to devise his method of the subcutaneous injection of creosoted oil. But no preparation of the drug is so well borne as the Carbonate; and it is preferable on all accounts to use it in the treatment of phthisical patients. Up to 20 grams daily (two-thirds oz.), can be taken without affecting the digestion injuriously. The doses of creosote usually given are not sufficiently large to destroy the tubercle bacilli, and the introduction of Creosotal into the therapy of pulmonary consumption is a marked improvement in its treatment.

The effect of the carbonate of creosote in pulmonary tuberculosis has been studied by Chaumier (Acad. de medicine, 1893), and by Lafond (These de Paris, 1893), whose observations were made in the service of Prof. A. Robin, at the Pitie Hospital.

The drug is to be administered pure, in capsules, or in emulsion, or dissolved in 4 to 12 parts of cod-liver oil. Mixing 14 grams (1-2 oz.), of the carbonate of creosote with 180 grams (6 ozs.), of cod-liver oil gives us the equivalent of 1 gram (15 grains), of creosote to each tablespoonful. From one-half to two teaspoonfuls of this mixture can be beaten up with the yolk of an egg, and administered in divided doses, in sweetened or aromatized water. The daily dose is as follows:

Child, 1 to 6 grams, (15 grains to 1 1-2 drachms); adult, 4 to 15 grams (1 drachm to 1-2 oz.)

The Creosotal is decomposed in the system, and the absorbed creosote is eliminated, partly by the kidneys and partly by the lungs. The breath often shows a slight aromatic odor of creosote, and the urine generally becomes heightened in color after large doses. Neither nausea, vomiting, nor diarrhea, nor any irritation of the stomach or intestines is caused by its use.

One of its first effects is an increase in the appetite and a betterment of the general condition. Thereon follows a diminution of the cough and of the purulent bronchial expectoration. At the same time the characteristic physical signs become less marked and disappear. In the early stages of tuberculosis, even cicatrization may occur. Parallel with the increase of the appetite and the disappearance of the phenomena of pulmonary auto-infection, there occurs a notable augmentation in the body weight. This increase amounted in some cases to several pounds a month. Often the cough and the physical signs disappeared entirely. The pharmaco-dynamic effects of Creosotal are, therefore, exactly analogous to those obtained by the hypodermic injection of creosoted oil, or of iodoformized guaiacol.

It is doubtless such results obtained by E. Chaumier (Congres de la tuberculose, 1893), which led him to say, that the Carbonate of Creosote more readily administered than the two above named preparations (for timid patients dread the subcutaneous injections), less irritant than the pure creosote, and causing no gastric or intestinal troubles, is destined in the near future to entirely replace the crude drug in the treatment of pulmonary tuberculosis. The carbonate of creosote is as stable a preparation as the carbonate of guaiacol, and has all its therapeutic properties.

The results obtained by various investigators are similar in their remarkable success to those gotten by Siefert and Hoelscher with the carbonate -of guaiacol. The car bonate of guaiacol is one of the chief constituents of the carbonate of creosote, as guaiacol is an important part of creosote itself. Creosotal will, therefore, be welcome to many for whom guaiacol carbonate is too expensive.

SANOSE—A NEW ALBUMEN PREPARATION.

BY DR. SCHREIBER AND DR. WALDVOGEL, GOTTINGEN.
Assistants to the Clinic.

A new albumen preparation called Sanose has been sent to us by the "Chemische Fabrik auf Actien, formerly E. Schering," of Berlin, with a request to experiment with it. It is a combination of albumens containing 80 per cent, of casein and 20 per cent. of albumose. The manufacturers say:

"A combination of digested albumen (albumose) and casein would seem to be a very desirable preparation, since pure albumose, as well as Liebig's meat peptone, form a peculiar combination with casein. For whilst pure casein when boiled with water forms a coherent, tough, and sticky mass, a preparatory fine trituration with one-fifth of its weight with albumose gives us a perfectly emulsified milky fluid. This peculiar behavior of albumose and casein is certainly of physiological interest; though, so far as we know, it has not been recorded in the literature. The peculiar behavior of milk may possibly be thus explained. As is well known, all the fat may be removed from milk by repeatedly shaking it with ether, without the fluid losing its milky appearance; and hence the milky appearance does not depend upon the presence of suspended fat globules in the fluid alone. The casein of milk, further, is not separated by boiling; a fact which has been explained by its existence in combination with the phosphates of lime or soda. It has long been known, however, that milk acts in exactly the same way after its salts have been comparatively removed by dialysis. Now, milk contains besides casein a comparatively small quantity of another albumen, which is distinguished from egg albumen in that it is not coagulable by boiling and therefore more closely resembles albumose. It is very probably this albumose-like material which prevents the separation of the casein from milk by boiling; and in like manner in Sanose it is the albumose that prevents precipitation at 212 degrees F."

This similarity of Sanose to milk, and especially to human milk, gives it a peculiar value; and as a matter of fact, when Sanose is mixed with water, a milk-like liquid if formed. Sanose is easily digested by trypsin, as well as by pepsin-hydrochloric acid at 40 degrees C. (104 degrees F.). Although we attach no very great value to artificial digestion experiments, we append the following experiment for the sake of completeness:—1 gramme (15 grains) each of Sanose, eucasin, and nutrose were dissolved in 20 c. c. (5 drachms) water, 10 c. c. (2 1-2 drachms) of artificial stomach-juice added, and the whole digested for four hours. On attempting to filter off the undigested albumen, only eucasin and Sanose gave clear filtrates. The nitrogen in the residues, determined according to the method of Kjeldahl, gave the quantity of undigested albumen with Sanose as 0.0812 gramme (1.25 grains), and with eucasin as 0.0927 gramme (1.43 grains).

Sanose is a white powder, odorless and tasteless, forming an emulsion when stirred with water. We have administered it in the following forms:—In milk and cocoa (about onehalf to one and one-half ounces to a pint of milk), in pea or bean soup (about one-sixth of an ounce to a plateful), and with Knorr's soup-powder. In none of these forms can the Sanose be tasted, and it is therefore taken by patients for a prolonged period without objection. As we did not believe that a pure albuminoid diet fulfills all the nutritive requirements of a sick organism, we have sought to combine Sanose with other foods of easily-digestible character. Thus to one patient (Case I.) we gave Sanose mixed with levulose (Diabetin); but this mixture proved rather too sweet to be taken for any length of time. A mixture of Sanose with maltose, isomaltose, and dextrine proved very pleasant, and it is possible that by combining these easily-digested carbohydrates with Sanose and an easily-digested fat in a gelatine capsule, all the necessary foodstuff may be supplied. Trials are being made in this direction.

For ordinary household purpose

Sanose is a suitable albumen preparation to be added to all foods prepared with flour or meal. Further, it may be added to bread to increase the albuminoid contents. We obtained a very tasty bread by adding 10 per cent. of Sanose, with a total albuminoid contents of 20 to 30 per cent. For patients who object to meat, or to whom its enjoyment is more or less forbidden—as in cases of nephritis, uric acid diathesis, or diabetes—Sanose bread will prove an agreeable substitute for aleuronate bread. Cakes containing 20 per cent. Sanose, i. e., a total albuminoid contents of about 30 per cent., were readily taken by our patients.

The nourishment of patients with Sanose enemas has not yet been sufficiently studied, but the nitrogen figures in Case I. prove its absorbability. Moreover, it may be mentioned that, although in some cases it was given for three weeks or more, no diarrhoeas occurred, even amongst phthisical patients who exhibited a tendency thereto. In all cases the urine was carefully examined, but circumstances did not permit of faecal analyses.

In conclusion; Sanose is a palatable, easily absorbed albumen preparation, capable of manifold employment, and possessing the advantage that no flavoring chemicals are added to it in its preparation. It can be given without the patients tasting it, and its price is a satisfactory one.—Deutsche Medicinische Wochenschrift, Oct. 7, 1897.

VICARIOUS MENSTRUATION AFTER REMOVAL OF OVARIES.

Marsi observed this phenomenon in a young lady who had undergone vaginal extirpation of the appendages for chronic inflammatory disease. For four months the urine became bloody precisely at the date of the normal period before the operation. Neither at that time nor between the vicarious periods could any trace of pathological products be detected, the deposit in the urine consisting of a few blood corpuscles and vesical epithelial cells.

—Centralbl. f. Gynak, No. 38, 1897.

ANTHRA SERUM.

Sobernheim makes a preliminary communication on this subject. He could find no immunizing substances in the blood either of animals treated with Pasteur's vaccine or of those who had passed through an attack of anthrax. In the case, however, of animals who have been treated for weeks and months with increasing doses of virulent anthrax cultures so that an active immunity is acquired, such protective substances are present in the blood. The serum obtained from a sheep thus treated conveyed a certain degree of immunity when injected into rabbits. The author has also immunized two sheep, first with attenuated and later with virulent cultures of anthrax; but the serum when injected into rabbits only delayed the fatal issue, but never prevented it. Even repeated injections of this serum gave no more satisfactory results. The results were the same whether spore-containing bacilli, or old cultures with free spores, or fresh anthrax blood without spores were used. Attempts at cure of the disease were without effect. Much better results were obtained when sheep were used instead of rabbits. In two out of seven animals 100 to 150 c. cm. normal serum from a lamb were first injected, then a small quantity of a virulent anthrax culture. Both animals succumbed to anthrax in from 32 to 40 hours. Three other animals were treated with a single dose (50, 100 and 200 c. cm.) of anthrax serum, and 24 hours later with a virulent anthrax culture. All these animals recovered. The sixth animal was injected with 20 c. cm. of the anthrax serum and then with the virulent culture. On each day for a week it received 10 c. cm. of anthrax serum, and it recovered. The seventh animal was injected with the virulent culture, and an hour later with 100 c. cm. of anthrax serum; 100 c. cm. were again injected ten hours later, and a similar dose was twice given on the next day. Smaller doses were given later, so that the animal received in all 500 c. cm. of the serum. It recovered. The interest of this last case is obvious, as it shows the cure of an animal by means of an-

thrax serum. Thus it is possible by means of the serum of an artificially immune animal to confer a sure protection against anthrax upon a fully susceptible animal such as the sheep.
—Berl. klin. Woch., Oct. 18, '97.

PROTARGOL, A NEW REMEDY FOR ACUTE GONORRHEA.

Neisser regards the ideal treatment of acute gonorrhea as one by which the gonococci are killed without the mucous membrane being affected, or, as far as possible, the inflammation and suppuration increased. He considers the best method to be injection, reserving irrigation for cases presenting special difficulties. He states that the best substance for this purpose with which he is acquainted is protargol, a proteid-containing silver compound. This contains 8.3 per cent. of silver, is readily soluble in cold and hot water, and is not precipitated by albumen, dilute sodium chloride or hydrochloric acid solution, or caustic soda. Ammonium sulphide darkens the solution, but does not precipitate; strong salt solutions precipitate, not silver chloride, but protargol itself. It has a remarkable penetrative power and excels the best of previous compounds, argentamin, in that, although containing more silver, it can be used in solutions up to the strength of 1 per cent. without causing any irritation. Hence it can be used as a bactericide from the very beginning of an attack of gonorrhea. It has the further advantage that it can safely be left in contact with the mucous membrane for a protracted period, even up to 30 minutes, by which time the sphincter has usually relaxed and allowed the fluid to flow into the posterior part of the urethra. The author lays down the following rules for treatment with protargol: The gonococcus must first be demonstrated, and it must be ascertained whether the posterior urethra is affected as well as the anterior. Next and at once systematic injection must be begun, the posterior urethra being treated as well, if necessary. Injections should be given thrice daily, the first two remaining in five minutes apiece, the third 30 minutes; if the secretion is considerable this should be changed five or six times. After a few days one injection per diem will often suffice, the protargol being replaced for the other two by astringent fluids. As the treatment is painless it can be conveniently continued for three or four weeks if necessary; even when the gonococci disappear within 48 hours the prolonged injections of protargol should be kept up once daily for a week. Then is even more necessary when no bacteriological examination is made; if the treatment is too short by one day the good of weeks may be undone. The strength of the protargol solution should be at first 1-4 per cent., and then increased to 1-2 to 1 per cent. In chronic cases irritative measures, such as the injection of 1 in 2000 argentamin may be resorted to; but here again the penetrative power of protargol renders it most valuable. Neisser concludes by expressing his belief that this substance is the best, safest and most rapid remedy hitherto introduced in the treatment of gonorrhea.
—Centralbl. f. Dermatol., Oct., 1897.

BACTERIOLOGY OF WHOOPING COUGH.

Czaplewski and Hensel have examined the sputum in this disease. The denser parts of the sputum are washed in three lots of peptone water. If the sputum is thick this washing is easily effected. Streak cultures are then made. Loeffler's blood serum being the best nutrient medium. The microbe is stained with carbol glycerine fuchsin (Czaplewski) or ordinary carbol fuchsin. A small, short bacillus, with rounded and swollen ends is found often in pure culture. It resembles the influenza bacillus morphologically, but differs from it in growing on all the ordinary nutrient media. The ends of the authors' bacillus stain more intensely than the other parts. Sometimes it forms longer threads and sometimes several individuals remain together in a chain. It is non-motile and possesses but small resisting powers. In young cultures it stains by Gram's method, but if it be then after-

stained with carbol glycerine fuchsin it is colored red. In severe cases of whooping-cough this bacillus is present in large numbers. It is only occasionally contained within cells. If the sputum is not well washed other microbes, especially the streptococcus, develop, and the isolation of the bacillus becomes difficult. The colonies are not very characteristic; they are somewhat raised, slightly yellowish grey, and resemble to some extent dew drops. Experiments on animals have as yet been negative. The authors have examined some 30 cases, and the constant presence of this bacillus leads them to publish the results. In some cases the bacillus was found before the patient presented the characteristic symptoms. One of the authors himself developed, while working with the material, an intense coryza with a few spasms of cough on one day. The bacillus was found in few numbers but in pure culture in the nasal secretion.

—Deut. med. Woch., September 9, 1897.

POST-MORTEM DELIVERY.

In German medical literature is found a term for which, as far as we are aware, there is no English equivalent, viz: "Sarggebuft," which literally translated means "coffinbirth" —that is to say, that a pregnant woman dies and the body is placed in a coffin and then before or after burial delivery takes place. Very few cases of this kind are on record. A notable case, however, is recorded by Dr. Bleich, of Tschirnau. Before proceeding to describe the case Dr. Bleich makes some remarks on the theories that have been advanced to account for the causes which bring about post-mortem delivery, and states that two explanations have been advanced; the first supposes that the pressure produced in the abdomen by the gases evolved in post-mortem decomposition is sufficient to cause the expulsion of the uterine contents, whilst the second suggests that the necessary force is brought about by the condition of rigor mortis into which the muscular structure of the womb is thrown. Proceeding then to a description of the case which he himself observed, Dr. Bleich records that on July 6 the dead body of a woman was found lying in a shallow pool of water. It was ascertained that she had escaped from her home in a state of insanity. On examination no signs of injury could be found with the exception of slight bruises on the knees; it was found that she was pregnant, probably in about the seventh month. Post-mortem rigidity was present; a few post-mortem stains were found on the back. It was concluded that the body had only been a short time in the water and that all the evidence pointed to suicide, and the burial took place on July 9. Eight days after the finding of the body it was ascertained that three young laborers had had sexual intercourse with the deceased woman shortly after one another. They were arrested and closely questioned and all three persistently denied that any criminal force had been used, but, on the contrary, said that the woman had been a consenting party. Exhumation of the body was ordered and a post-mortem examination was made on July 19. Delivery was found to have taken place after the coffin had been closed with complete inversion and prolapse of the uterus and vagina. A full account of the necropsy is given in Dr. Bleich's paper. We can only give a brief abstract. The abdomen was greatly distended but exhibited no signs of injury. Between the thighs lay a dark-red mass (the uterus) about the size of a head, from the under side of which sprang a dark umbilical cord, and connected with the latter was the body of a child 36 cm. in length. The vulva was wide open. The uterus was flabby and like a sac and lay with its inner surface pressed against the thighs together with the vagina; the placenta had separated and was dark-brown in color and of a hard consistence. The muscular walls were thin and brittle. Dr. Bleich suggests that the violence experienced by the woman shortly before death had been of such a nature as to render abortion probable, and that the collection of the gases of decomposition in the abdomen had been sufficient to complete that process and also cause the

condition of the uterus found on the exhumation of the body.—Lancet, Dec. 18, 1897.

"THE THERAPEUTIC VALUE OF ARSENAURO."

BY A. P. BUCHMAN, M. D., FORT WAYNE, IND.

Read before the Miss. Valley Med. Asso. at Louisville, Oct. 7, 1897.

To fully appreciate the therapeutic value of a drug one must understand its limitations. No remedy can be made to do more than a limited number of things. To ascertain just what pathologic conditions are modified or changed for the better by a given therapeutic agent is a task of no mean importance, yet an absolute necessity, when we aim to be rational in our methods.

For the past four years Arsenauro has been one of the chief factors in my therapeutic armamentarium because of its almost universal happy effects in the special line of work that I have almost exclusively engaged in. The body of work has been in the field of denutrition, and false metabolism, depending remotely upon gastric and intestinal indigestion.

It is not my purpose at this time to classify and enumerate an extensive list of such patients, but rather to give a very short clinical history of a type case in which the phenomena that reached the threshold of consciousness were sufficiently distinct to induce the opinion that a diverse etiology, rather than a single line of cleavage, was necessary in order to reach a logical demonstration of the causative factors in operation, and therefore rationally outline a therapeutic course destined to terminate in satisfactory results.

Abnormal metabolism and denutrition express themselves in direct relation with constitutional idiosyncracies, hygienic environments and the vulnerability of the organism. Bearing this in mind we can comprehend why one patient will present a pathology of the lungs, another a kidney affection and still another a disease of the nervous system; while the point of departure from the health line in all is the same.

The first case in which I noticed gratifying results following the exhibition of Arsenauro, was that of a traveling insurance adjuster, who had suffered with gastric indigestion over a period of five years, in consequence of which his blood stream was impoverished, his nervous system shattered and the whole organism working at the lowest possible pressure. The particular symptom that brought him to me was insomnia. He was forced to quit work on this account. A farther description of this case is unnecessary, as the clinical picture is familiar to every one. A thorough cleansing and disinfection of the digestive tube was the first step, after which I carefully regulated the diet, so as to insure the greatest quantity of nutrition for the least amount of energy expended by the digestive forces. Bathing, massage and electricity were ordered. The usual carminative and tonic drugs were exhibited. This course was persisted in for a month, during which there was noticeable betterment, but not sufficient to satisfy either the patient or myself. I now withdrew all former drugs and gave him Arsenauro in ten-drop doses four times daily. In ten days the patient was sleeping comfortably, eating and digesting fairly well, and altogether was sufficiently recovered to go to work moderately. After sixty days constant use of the drug he announced himself as having entirely recovered and able to perform the exacting work required of him with ease and pleasure.

The recital of this case will suffice to illustrate the groove into which Arsenauro fits so perfectly. It changes the chemical movement in the blood plasma. The movement of the atoms thus initiated continues; new material takes a more pronounced part in the various phenomena of motion and life; the lymphatic glands, whose office it is to supply fresh material to the blood and nervous system, are changed to healthy action, their products become normally reconstructive; cell digestion is stimulated, and the blood is im-

proved up to a normal standard.

To accomplish these results, however, it is not enough to simply give Arsenauro. I have tried to expose the preparatory work, which is absolutely essential, and without which Arsenauro, like any other drug given out of time and place, will yield only negative or indifferent results.

I have never secured from Fowler's Solution the fully desired arsenic results which have invariably followed the administration of Arsenauro, and yet, as Dr. Stuckey, over a year ago, pointed out in his scientific paper, the average dose of Arsenauro contains very much less actual metallic arsenic than does Fowler's Solution. We evidently have an entirely new agent in Arsenauro, something more than the mere combining of arsenic and gold, for by evaporating Arsenauro you have a resultant crystal which is not the crystal of arsenic, nor is it the crystal of gold, but a crystal such as I have never seen before. I would lay emphasis upon the point that I have observed no evidence of arsenical poisoning from Arsenauro. It does not produce cumulative effects, but is easily and promptly assimilated.

A PHASE OF THE TREATMENT OF GOUTINESS.

By REYNOLD W. WILCOX, M. D.,
of New York.

The subject of lithemia has been presented with thoroughness and vigor by many able internalists, and yet it has never received the attention which its importance demands. Those who have studied its literature during the past five years, and have intelligently applied the principles therein laid down, are enthusiastic as to the real advances which have been made. Many hitherto unexplained and inexplicable symptoms and conditions yield as if by magic, and the result is not only a relief from long-standing disability, but as well, the acquisition of clearly-cut ideas as to diagnosis and treatment on the part of the physician.

While we are not prepared to abandon the term lithemia, yet perhaps it is well, pending a more widely diffused knowledge of the significance of the term, to substitute for it the word goutiness, which is more suggestive to those who hold conservative opinions, and is supported by the authority of Ewart. Satterthwaite's classification divides lithemia as follows: The hepatic (dyspepsia), the neurotic (neurasthenia), and the arthritic (gout). Further, it must not be forgotten that uric acid, whose role in the causation of morbid conditions has been so convincingly proved by Haig, is not all of lithemia, nor of uric-acidemia; else leucocythemia must be included in the consideration of goutiness. Indeed, the fact cannot be safely ignored that many instances of what is popularly designated as chronic rheumatism are, properly speaking, forms of disease resulting from uric-acidemia. As for acute polyarticular rheumatism, modern investigation warrants us in considering it to be of bacterial origin.

Then, making use of the term "goutiness," as Ewart has defined it (as being synonymous with the conditions of imperfectly declared gout, not necessarily associated with definite structural change, although such may also be present in a minor degree, and usually consisting of varied functional disturbances of a general character which cause many clinical symptoms), we may differ with him in that uric-acidemia, although a declared pathologic condition, should come under the head of goutiness. After these considerations the title of this paper may seem to be appropriate, and more especially, as it is intended to cover but one aspect of the question, namely, the neurotic form so often discussed under the symptom-complex of neurasthenia. That this condition should be succinctly present is evident from the following instance which came under observation about five years ago:

Case 1.—An officer in the navy became incapacitated for duty. His habits were beyond reproach. He was emaciated, pallid and appeared at least ten years older than he actually was. About every ten days to two weeks he would be absolutely incapacitated by violent attacks of headache, which continued from two to five days. During two or three

days he would be depressed in spirits, suffer from inappetence, perhaps be constipated, and be disinclined to mental or physical exertion. Beginning with the afternoon he would suffer from slight vertigo, "crinkling before the eyes." Pain, resembling migraine, with pallor of the face, would assert itself, nausea would follow, and, finally, he would be forced to go to bed. The whole gamut of migrainous symptoms would be run; pallor, later flushing of the face; temporary blindness, followed by throbbing temples; lightheadedness, with specks before the eyes; and, as a sequel, nausea, vomiting, and purging; heavy urine, diminished in quantity, with brick-dust sediment, would be followed by a copious flow of clear urine, resembling that of hysteria; forcible palpitation, precordial pain, dyspnea, and later, fluttering of the heart as a preliminary to tachycardia. During the first stage the patient would be melancholic, suspicious, jealous and irritable. He would give way to fits of temper without cause. The future had nothing in store for him, the past was a failure, and present existence a torment. His heart was believed to be affected, and he underwent an operation for hemorrhoids without an anesthetic. He was believed to be dyspeptic, and his diet was limited until he became emaciated. Since mucus was a frequent and important constituent of his stools, he received cathartic medication in great variety. Finally, he was retired in the belief that his disability was permanent.

A careful physical examination revealed that the only disturbance referable to the heart was a slight hypertrophy of the wall of the left ventricle. The pulse evidenced a high degree of tension. The liver could be felt below the free border of the ribs, the edge rounded and more than normally resistent. The abdomen was tender, somewhat distended, but otherwise normal. The urinary examination showed an acid urine of high specific gravity, a trace of bile, but no albumin, glucose, or casts. The relation of urea to uric acid was greater than thirty-three to one. A strict regimen of meats, green vegetables, excess of water between meals, regular evacuation of the bowels obtained by means of sodium phosphate, after preliminary purgation with calomel, resulted in relief of all symptoms within three months, save that his periodic headaches, although less, continued. The coal-tar analgesics administered at the time of an attack had little effect; the nitrites given during the spastic stage cut it short, but the secondary congestion was intolerable; opiates were out of the question. A weak convex glass for manifest hyperopia was worn with comfort, but did not relieve the headache. After several months, during which the condition remained about the same, the use of piperazin water was suggested. This was administered during an attack, and the patient managed to keep about instead of taking to his bed as formerly. The first time that premonitary symptoms appeared one bottle was taken each day three days in succession with the result that the attack of pain was the mildest he had experienced in many years. By giving this remedy as soon as the uric-acid elimination fell below the normal he was enabled to live in comfort, still, however, adhering to his diet and regular life. After some months he engaged in active business, and has so continued with success as to results and comfort to himself.

As this was the first of my using the "water" and as I had not obtained good results from the use of piperazin alone, I was led to quote Haig in my address upon lithemia before the Medical Society of the State of New York in February, 1893, in which I said that "it was not a powerful excretant and could not compare with the salicylates," adding that "I had only found it of use when, in the treatment of neurasthenia, it was combined with large doses of phenocoll hydrochlorate." The brilliant success achieved in this instance led me to continue my investigations and finally to believe that I had solved the problem of the management of neurotic lithemics, which hitherto seemed to present insurmountable difficulties. The use of a meat diet, then advanced in my

paper, provoked adverse criticism. When, however, we consider, that the so-called vegetable diet is not only one of starches, sugars and fats, but as well of vegetable albumins (gluten), it is apparent that the distinction between an animal and vegetable diet is one of terms rather than of facts. Further, when it is generally known that the vegetable albumins are of far greater difficulty of oxidation than those of animal origin, and, since lithemia is largely dependent upon imperfect oxidation, the reason for the use of a meat diet is clear. The practice then advocated has been adhered to with the most satisfactory results, not only in affording relief to patients afflicted with goutiness, but to those with well-marked gout who had been treated, secundum artem, by the classic methods. While uric-acidemia is a constant factor in both gout and goutiness, we must, as careful observers, admit that there is something else of enormous importance. It hardly aids in the solution of the question to add imperfect oxidation; it simply advances the problem another step. Since it has been conclusively shown by Haig that migrainous attacks are associated with a diminished elimination of uric acid, and that the end of the vasospasm is followed by a largely increased output of this substance, and, inasmuch as in vitro piperazin is an excellent solvent of uric acid, we have a logical remedy for the pathologic condition. Inferentially, this drug should be of use in all conditions associated with deficient elimination of uric acid, and practically this is found to be a fact.

A striking example of this condition (neurotic lithemia) is shown in the following history:

Case II.—A gentleman of middle age, somewhat corpulent, had spent two summers in Europe and two winters in the South for so-called nervous prostration. There was temporary relief following each vacation. He was a good liver but not a hearty eater. His habits were excellent with the exception that he smoked a number of cigars each day. He was prosperous in business and fortunate in his family relations. His sleep was disturbed by annoying dreams; he awoke in the morning unrefreshed, and rarely slept more than three to five hours. He was irritable, depressed in spirits and unreasonable; the physical examination revealed an unusually healthy man as regards the respiratory and circulatory systems. The liver was slightly enlarged and tender; the abdomen somewhat distended and tympanitic; conjunctivae jaundiced. During January of this year a urinary examination showed absence of albumin, casts and glucose. There was a trace of bile; acidity high, and the total amount of urine was 935 ccm., and contained 0.312 gm. of uric acid, and 25.2 gms. of urea. Thirty grains of potassium acetate was given at 10 P. M., in the hope that the normal morning alkalin tide would be increased. Sodium phosphate was ordered, dissolved in hot water, at bedtime, in sufficient quantity to produce an easy evacuation of the bowels. The diet and the exercise were regulated according to the principles laid down in the address previously mentioned. Ten days later the urine was found to be 2825 ccm. in quantity, which was exceptional, and it contained 0.334 gm. of uric acid, and 28.2 gms. of urea. The sodium phosphate was continued and piperazin in 20-grain doses was given at bedtime. One month later the amount of urine was found to be 1800 ccm., containing 0.346 gm. of uric acid, and 29.3 gms. of urea. The patient's ability to sleep was somewhat improved, and the morning exhaustion was not so much a subject of complaint. To the dose of piperazin 30 grains of phenocoll hydrochlorate was added, and the patient spent nearly two months in the South, returning considerably improved. The urine was now 1920 ccm. in amount, and contained 0.501 gm. of uric acid and 25.1 gms. of urea. The constant dreaming was now lessened, and there was marked improvement as regards irritability and depression of spirits. He was directed to take one bottle of piperazin water during the evening. Five weeks later the urine was 1650 ccm. in amount, and contained 0.572 gm. of uric acid, and 24.6 gms. of urea.

He now went to his country residence for the summer, coming to town each day for business, and at present reports that he sleeps with but little dreaming, awakes refreshed; everything is bright and cheerful, and he feels able to attend to his business in a satisfactory manner. The last report of urinary condition was: Quantity, 1810 ccm.; uric acid, 0.629 gm.; urea, 24.2 gms. It is a curious fact that in spite of the low co-efficient of uric acid during the earlier part of his treatment he never suffered from headache nor from neuralgia.

The following is an instance of a common error in diagnosis:

Case III.—A young man engaged in a literary occupation became incapacitated. He was finely educated, brilliant and cultivated. During May of last year he collapsed mentally and physically, presenting the symptoms generally ascribed to neurasthenia. He was treated in a sanatorium for eleven months, running the gamut of the rest cure, massage, electricity, baths, packs and vegetable diet. At the end of this time he was just as unable to endure mental or physical fatigue as when he commenced the treatment. He had, however, gained considerable flesh. On examination, during April of this year, he was found to be sallow and lethargic. He complained of constipation, and of but little appetite, abdominal distension, dull headaches and inability to think or do anything requiring thought. The physical signs were those of an enlarged liver, gastro-intestinal dyspepsia and the neurotic type of lithemia as regards heart and nervous system.

The urine was 1120 ccm. in amount, containing no albumin, casts or sugar, but a trace of bile, and 0.336 gm. of uric acid and 27.1 gms. of urea. A system of purgation was begun with 1-10 grain of calomel at hourly intervals until a free movement was obtained each day, and this necessitated the occasional use of Kissingen water. This was continued ten days, during which time the movements would have recalled the older descriptions of inspissated bile. The usual diet was ordered, with a considerable amount of water between meals. A Turkish bath was taken every second or third day. At the end of this period the patient slept much better, and felt refreshed when he awoke. The skin had lost some of its sallowness, and the mental depression was less. During the next ten days gastro-intestinal fermentations were inhibited, first with resorcin and later with bismuth naphtolate. The piperazin water was prescribed in bottle doses, to be taken between dinner and bedtime. At the end of this time the urine was 1640 ccm. in quantity and contained 0.496 gm. of uric acid and 26.2 gms. of urea.

At the present time the patient sleeps six to eight or nine hours each night and awakens refreshed. He walks several miles daily, reads the newspapers and takes interest in his surroundings. For the next month the piperazin water was continued; a weekly series of calomel powders were insisted upon. His diet was now made more varied and increased in quantity; bicycle riding was encouraged. At the end of five weeks the urine was 1725 ccm. in quantity and contained no bile; uric acid, 0.550 gm.; urea, 25.3 gms. The following pulse tracing shows a distinct gain:

At the present time the patient can easily ride fifteen miles per day upon his bicycle, eat articles of food which he has not ventured to ingest for years, and can digest them better. He sleeps quite well, has regained his intellectual vigor, and is in a fair way to attain his former standard of physical strength.

The purpose of this paper is to point out that a very considerable number of so-called neurasthenics are really patients who are suffering from goutiness of the particular variety known as neurotic lithemia. It is a notorious fact that these patients are cured with difficulty, notwithstanding that they are curable. The clearing of the mental atmosphere of depression as soon as the stored uric acid is set in motion toward excretion is remarkable. Further, since it is not the excess of manufactured uric acid, but rather its deficiency of elimination to which

the symptoms are due, and in addition, that a vegetable diet contains albumin of a variety which is difficult of oxidation, renders the prohibition of red meats an illogical procedure. Piperazin in vitro has been proven to be an efficient and harmless solvent for uric acid. Administered with phenocoll, better results are obtained than when piperazin is alone employed.

So far as my knowledge goes, piperazin water is the method of choice for the administration of this drug, because perfect solution in proper dose and quantity of menstruum is obtained.

It may then be concluded: 1. That uric acid, as a causative factor in neurotic lithemia, a form of goutiness, should not be overlooked. 2. That a limited meat diet is productive of good results. 3. That piperazin administered in the form described in this paper is the remedy of choice for the elimination of uric acid, not only in this, but in other pathologic conditions dependent upon the same cause.

—Medical News.

DIGITALIS AND STRYCHNINE IN CARDIAC AFFECTIONS.

Whenever a diseased heart, which has hitherto performed its work satisfactorily, suddenly displays vagaries of action, it should not be taken unreservedly for a sign of failing compensation. Efforts should be made to discover the cause, since the correction of injurious habits, or the removal of reflex disturbances may set the heart to rights before serious damage ensues. Should the derangement of the cardiac action threaten to produce or actually cause dilatation, then, of course, digitalis and strychnine are indicated; but, so long as compensation is intact, digitalis and allied remedies should be withheld.

—The Medical Standard.

OSTEOMALACIA AND ROENTGEN RAYS.

Gobel watched for seven years a severe case of mollities ossium in a woman now 50 years old. No less than ten fractures have occurred within five years, both humeri and forearms, the clavicles and ribs suffering. Repair was extremely slow. She had borne 14 children, and always required a doctor. Gobel tried to explore a fracture of the humerus with X-rays, and was surprised to find that no bone shadows could be obtained, so completely was the injured bone deprived of lime salts. He obtained perfect skiagraphs of the same bone in other patients. The borders of the radius and ulna in the same patient gave a very faint shadow, the axis remaining absolutely diaphanous. The transparent humerus had just been fractured for the third time. The fractures are preceded by sharp local rheumatic pain. Gobel is keeping a close watch on the patient, and when the local pains set in he intends to examine the spot with the rays and to apply a protective apparatus to the affected limb should the shadow of the bone be feeble at the acting point.

—Deutsche med. Wochenschrift, No. 17, 1897.

Miscellany.

HYPODERMIC PURGATIVE.

R—Caffeine.
Chloral .....aa gr. 7½
Aq..... .....m 75
Sig.—Inject fifteen minims.
—Ewald, Journal de Medecine de Paris.

A GARGLE FOR LACUNAR AMYGDALITIS.

We find the following formula in the Presse Medicale:

R—Beech creosote.....gtt. 8
Tinc. of myrrh.
Glycerine.....aa grams 900
Aq..... .....grams 1800
M.—

—N. Y. Med. Jour.

ACUTE CORYZA.

Capitan, in Medicine Moderne, recommends the following powder, which he says arrests generally, almost immediately, a commencing coryza; if from the very onset the patient takes pains to snuff up a pinch into each nostril and draw in deeply:

R—Saloli..... .....gr. 15
Acidi salicylici.....gr. 3
Acidi tannici.....gr. 1
Pulv. acidi borici.....dr. 1

M.—Take a pinch every hour for half a day, and then discontinue the use of this snuff, for, if it be perservered with, it may cause an eczematous eruption on the margins of the nostrils, from the action of the phenic acid resulting from decomposition of the salol.

Another snuff-powder by the same writer is recommended as being similar in its action to the preceding, but less powerful:

R—Pulv. cretæ .....gr. 75
Antipyrin .....gr. 16
Pulv. acidi borici.....gr. 30
Acidi salicylici.....gr. 4

M.—This powder may be snuffed up the nostrils without fear of irritation.

—Ex.

VIRGINIA'S ATTRACTIONS.

It is astonishing what a vast amount of rational enjoyment may be extracted from a ten-days visit to Virginia; how it may be made to compensate for the untold miseries of months of labor, and, in fact, obliterate the remembrance of the "ticker" or of "trial balances," which one must endure while tossing among the breakers of modern business.

It is wise for Americans to see the beauties of Virginia thoroughly before seeking those of other countries. It is not only a better education for the mind, but it gives a fuller appreciation of these beauties of nature, which are fully equal to those of Switzerland and Italy. Men who have seen the Rhine, the Rhone and the Tiber have quite worn off that freshness of enthusiastic feeling which is at first aroused by the New, the Greenbrier and the James.

In the Chesapeake & Ohio sections of the Old Dominion are bits of scenery each bearing an indelible impress of Creation's hands, and each preserving memories of Nature's might. The Natural Bridge, the Grottoes of the Shenandoah, the Caverns of Luray, the New River canons, tell stories widely different from Nature's structures of continental Europe, and Old Point Comfort, Williamsburg, Richmond and the Lower James disclose fragments of history of far greater interest to us of American birth than the treasures of the Old World. Pictures of delicious and magic beauty abound. In the heart of the Alleghanies health and pleasure seekers find life-giving waters and social enjoyment at White Sulphur Springs, the celebrated Hot Springs, Healing Springs, Warm Springs, Natural Bridge and a host of other resorts of world-wide fame. If one is an enthusiastic lover of military history, with an admiration for warlike deeds of warlike men he may stand on almost any mountain in Virginia and gaze upon fields where men's hopes have been destroyed, and upon plains which have wept bloody dew. The lover of nature will see valleys

of peace and rich, fertile dells, through which silver rivers wind their graceful lines. The student of the utilitarian school may feast his eyes on mines of iron and zinc and coal, while to the sentimental there are nooks fitted only to the intermingling of the lover's speech.

AN APPEAL

To every Registered Physician and Licensed Midwife in the United States for Information Concerning Criminal Abortion.

Dear Doctor:

I most earnestly appeal professionally to each of you, regardless of your school of practice, your prominence in the medical profession, or your location, to answer the questions given below. In replying please designate each question by its number. Answers can be made in numerals, and if you do not elect to respond by letter a postal card will do as well. The face of such a card will present only an aggregation of meaningless figures to all who handle it except ourselves.

However, I will highly appreciate whatever you may impart in relation to criminal abortion otherwise than may be contained in your answers to my questions. I trust your visiting list, your cash and account books, and other data in your possession, will enable you to give definite or approximate answers without consuming too much of your time. If the 115,000 to 120,000 physicians in the United States will kindly give the information I ask, I will return to them through the medical press, some time during 1898, a summary of the results of my investigation.

I desire to assure you that every line given me on the subject of my inquiries will be held strictly private, if you request it, and should you not request its privacy, I will give it good treatment. If for any reason you wish to withhold your full name your initials will suffice. Remember my inquiries cover the year 1897, and where you cannot give a definite answer an approximate answer is desirable:

QUESTIONS.

1. Give total number of abortions from all cases that occurred in your practice during 1897.*
2. In how many of these abortions were the elements of criminality, to your mind, apparent?
3. In how many of these abortions, except those classed in question 2, were the elements of criminality, to your mind, probable?
4. How many of the abortions named in questions 2 and 3 were followed by puerperal septicemia or other diseases?
5. How many deaths resulted from the abortions named in questions 2 and 3?
6. How many still-born in your practice?
7. How many infanticides?
8. How many viable children born in your practice?
9. How many cases of puerperal mania resulted from the abortions classed in questions 2 and 3?

All midwives who are licensed are solicited and urged to answer the above questions so far as their knowledge enables them. Doctor, permit me again to beg that you answer my inquiries either definitely or approximately, and if for any reason you cannot fully answer all do your best on questions two, three, five and nine. Medical journals throughout the United States are requested to favor the undersigned with an insertion of these questions in their January or February, 1898, issues.

C. D. ARNOLD, M. D.
El Reno, Okla.

*NOTE.—Question one should include abortions which you know occurred among your lady patrons without the attention of a reputable physician. Any abortion that resulted from an obstinate disregard on the part of the woman, of a physician's advice, or from the wilful commission of any act which her observation, experience and other knowledge gave her reason to believe might induce immediately or even remotely the expulsion of the uterine contents, was criminal. (Any act, however simple, occurring in the daily avocation of a pregnant woman, if impelled by an intent, or even a desire or wish to get rid of her pregnancy, is criminal whether she aborts or not). I use the word "abortion" here to mean the expulsion of the products of conception at any time during gestation to the end of the seventh month, if the abortion was unavoidable, and to full term, if criminal.

Book Reviews.

REVIEW.

ILLUSTRATED SKIN DISEASES, An Atlas and Text Book.—With special reference to modern diagnosis and the most approved methods of treatment, by William S. Gottheil, M. D., New York. E. B. Treat, 5 Cooper Union, publisher. Copyright, 1897, by E. B. Treat. Contents: Morbilli, rubeola, scarlatina, variola, vaccinia, varicella, lichen planus, lichen ruber, favus, trichophytosis capitis, trichophytosis, trichophytosis barbae, eczema (cont.), erythema multiforme, herpes, zoster, dysidrosis, pemphigus, dermatitis herpetiformis, impetigo contagiosa, dermatitis exfoliativa, psoriasis, trichophytosis corporis, pityriasis rosea, chromophytosis, erythrasma, scabies, phtheiriasis capitis, phtheiriasis vestimenti, phtheiriasis pubis, eczema.

We have examined with renewed interest the 4th, 5th and 6th parts of Dr. Gottheil's Serial Atlas and Text Book on Dermatology. The salient features of the work in its opening pages are maintained throughout these advancing numbers. Brevity, with simple, clear diction, renders a comprehensive grasp of the subject easy.

In a casual survey of this work it is strikingly obvious that the author is no micro-maniac, for he repeatedly states, of various new inflammatory affections, that while some maintain their bacterial origin, he and others have not been able to demonstrate it.

The author is quite positive and emphatic in his differentiation of those cutaneous lesions dependent on local, and those dependent on constitutional states; in the meantime pointing out our impotency to cure the latter without close attention to hygienic-dietetic conditions and constitutional states. Careful attention is given to detail in treatment rather than indulging in endless controversy on phases of pathology. This feature is one which must strongly commend the work to general practitioners, for whom it seems to be particularly adapted.

ORIGINAL INVESTIGATIONS BY DRS. H. P. LOOMIS, KARL VON RUCK AND HUGO SUMMA, OF GUDE'S PEPTOMANGAN PREPARATION.

This is a little pamphlet containing tables of facts relating to the ability of this preparation to build up the red corpuscles of the blood. It would pay our readers to send to M. J. Britenbach & Cd., New York, for one.

Jesse Moore Old Kentucky Bourbon or Rye Whisky is a standard of excellence; pure, old and ripe. Send for samples and prices. Jesse Moore, Hunt Co., Louisville, Ky.

ROYAL COLLEGE OF SURGEONS OF ENGLAND
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Original

ISOLATION IN SCARLET FEVER UNNECESSARY AND INEXPEDIENT.

BY ARTHUR WIGLESWORTH, L. R. C. P. LOND., M. R. C. S. ENG., L. S. A.

I have on several occasions called your attention to the great value of carbolic acid in the treatment of scarlet fever, for in my hands it has proved a specific for that hitherto much dreaded zymotic disease. Without troubling you again with details I may summarize the results by stating that if I saw my patients in the initial stage of the disease they all recovered; that I have had only three cases of albuminuria, all transient in duration; only one of glandular suppuration; and all other usual sequele have been characteristically absent. Finally, all the patients have recovered in a remarkably short space of time and with but little enfeeblement of strength. This treatment consists in administering to all patients, so soon as scarlet fever is suspected or diagnosed, from one to six grains of carbolic acid (according to age) freely diluted with water and continuing it every two hours until the rash has finally disappeared and then reducing the dose and frequency of administration until convalescence has been fully established. This practice I have pursued for over 16 years and each succeeding year confirms my opinion of its inestimable value.

The subject of this paper has, however, only recently forced itself upon my attention, and was chiefly due to a perusal of Flugge's work on micro-organisms, which has given me a scientific basis to work upon. It is to this scientific basis, founded upon pathological experiments, as described in that work, that I desire to call attention. I may premise that it was not till some years after I com-

menced the use of carbolic acid that I was led to adopt my present views and prepared for this latest development. The first stage was to administer carbolic acid as a possible prophylactic; and it arose in this way. Two children in a family were attacked with scarlet fever, and it was found quite impossible to isolate them from the rest of the children—three in number—because there were only an elder sister and the mother to attend to the wants of the entire household. I put this sister and the other two upon two-grain doses of carbolic acid administered twice a day, and the freest communication existed between the inmates of the sick chamber and the rest of the household. The result was eminently satisfactory; none of the rest took the infection, though about three years afterwards they were attacked, showing that there was a susceptibility to the zymotic poison.

With the experience thus gained I decided to pursue this line of prophylactic treatment in all subsequent cases, giving carbolic acid to those not infected, and then allowing the freest communication between the attendants in the sick room and the other inmates of the household; but not allowing uninfected children to enter the sick chamber. The results of this treatment were remarkably striking. I found that most of the household escaped infection altogether, but they not infrequently had an attack in after years. That those who did take scarlet fever invariably—there is not a single exception—took the infection in a milder form, and in only one instance did a sequela occur; finally, that after disinfection no other cases ever arose unless imported from a fresh source I concluded, therefore, that there was some special effect produced upon the unknown micro-organism of scarlet fever which rendered it much less virulent, and this view seemed to me to receive a measure of support from the fact that whenever a patient had taken a certain quantity of carbolic acid a peculiarly dark color of the urine appeared (which I now look upon as indicative of "carbolization" having been effected), and that when this was produced the urine would remain free from the usual putrefactive changes from a week to a month, and if it occurred ultimately the usually highly offensive ammoniacal odor of putrid urine was almost absent. It was not, however, until I had read Flugge's work that many points which I did not understand were made clear to my mind, and thenceforward I entered upon a new course—namely, that of abandoning isolation—hitherto with highly successful results. My plan, therefore, is to first carbolize my patient with doses according to age, and at the same time to put all the uninfected members of the household on carbolic acid, and when the characteristic hue has become manifested in the urine of the patient to introduce into the sick chamber the other children, allowing them free access to the invalid until desquamation is completed and the house disinfected. Before, however, giving details of cases in support of this unusual procedure I must give the following few extracts from Flugge's work concerning bacterial attenuation, which determined me to pursue my present course. "The loss of the fermentative or pathogenic properties (in micro-organisms) is shortly termed the 'attenuation of the bacterium.'" "The vital phenomena which are in this way lost (as far as has yet been ascertained) are only the power of producing fermentation and that of exciting disease." "The smallest degree of injury which micro-organisms can experience as a result of external influences consists in the disturbance of their complete development." "Minute departures from the normal conditions of existence often lead to a cessation of some one biological function. Thus by alterations we may have cessations of the swarming power, of the secretion of peptonizing ferments of the fermentative action, etc., whilst growth multiplication and all other vital phenomena remain unaltered." "Their power in producing disease also may be influenced by similar trivial alterations in the conditions of life, and may be even temporarily removed...for example, by small doses of specific poisons we

might be able to neutralize the superiority of the pathogenic bacteria over the cells of the animal body." "By noxious influences of definite intensity we may so alter many bacteria that they lose certain of their vital functions." "The noxious factors which are suitable for this action are less energetic than those which cause complete death of the bacteria; on the other hand, the effects are more marked than in the case of inhibitory means, which only exert their influence so long as they are present in the nutrient substratum." "At times, however, the greater effect necessary for attenuation can be produced by sufficiently long-continued action of the milder means." "When properly regulated various chemical poisons are able to produce a permanent attenuation." Pasteur, writing on "The Attenuation of Bacteria" by chemical means, says: "Each cultivation of the attenuated bacterium is a vaccine for the more virulent—that is to say, a virus capable of producing a more benign malady." "The bacteria attenuated by antiseptics, whether they give rise to spores or not, preserved their diminished virulence through repeated cultivations." "It would seem, therefore, that the new (or attenuated) virulence of the varieties of bacteria thus produced is the better fixed the more gently the modifying influence acts upon them." These, then, are general principles concerning the attenuation by chemical agents of those bacteria which cause disease.

The next point to which I would briefly direct attention is an important one to the subject in hand, viz: the action of carbolic acid as an "attenuator" and "bactericide" upon a given bacillus. The anthrax bacillus, observes Pasteur, has been experimented upon more than any other—the one best studied. It is one comparatively easy of cultivation, has marked and distinctive characters, and is one of the most resistant of the bacillus tribe to inhibitory influences, and being a facultative parasite affords every facility for experimental observations; hence its behavior under the influence of carbolic acid is of very great importance, because this acid alone of all the more powerful germacides is one that can be given in large and repeated doses, and these can be continued for a lengthened period of time without producing any deleterious effects upon the system or its organs, unlike many of the mineral and organic germicides. In all the experiments made on the anthrax bacillus it should be borne in mind that its cultivation was made in the most nutritive fluids—i. e., those that were the most favorable for the growth, multiplication and development of its virulent powers—and that the varying proportions of the carbolic acid were added to these fluids. Therefore the bacillus had advantages conceded to it which were foreign to its habitat in the animal body, whilst conversely a certain but unknown percentage of disadvantage accrued to the germicidal powers of the carbolic acid, because when this special form of neutrient material is withdrawn the carbolic acid acts with far greater energy. There is a considerable difference, however, exercised on those anthrax bacilli which have spores and those free therefrom. Bacteria free from spores are completely and rapidly destroyed (not attenuated merely) by a very small proportion of carbolic acid, being killed in a few minutes when from 0.25 to 0.5 per cent. is added to the nutrient fluid, whilst from 4 to 5 per cent. is required to destroy its spores in from 24 to 48 hours. Gartner and Plagge, however, found that a three per cent. solution was required to destroy the non-spore-bearing anthrax bacillus, but that this was accomplished in eight seconds, and a one per cent. solution caused their rapid disinfection. All experimenters, however, agree that carbolic acid is a very efficient bactericide.

The next series of experimental results to which I would direct attention is the amount of carbolic acid necessary to attenuate this very resisting bacillus. Koch found that there was a distinct hindering of growth when 1-1250 of acid was added to the nutrient fluid, and that a complete cessation of growth occurred when the strength was in-

creased to 1-850. In these experiments it was found that the "action of the antiseptic was to diminish the virulence of the bacterium," and by continuing these experiments, by cultivations taken at lengthening intervals from the original flask containing the antiseptic, it was found that decreasing virulence was exhibited until an attenuated virus was produced capable of preserving animals from a fatal form of anthrax—i. e., a vaccine was the resultant. All these experiments were made outside the body, and under the most favorable circumstances for the growth and strength of the bacillus, but a great difference was observable when it was taken direct from the blood and then exposed to the action of the antiseptic. For instance, Koch observes that bacterial filaments taken from a virulent drop of blood in a case of anthrax soon perished when placed in a solution of carbolic acid of 1-600, though, if a similar drop was put into the nutrient broth and carbolic acid of the same strength was added, the bacilli lived and grew therein. Lord Lister, in his observations, has found that normal blood serum is by no means a favorable soil for bacterial growth, and he states that he has returned to the use of carbolic acid for disinfecting purposes. So much, then, for the definite and decisive experiments with carbolic acid on the anthrax bacillus, but in drawing comparative reasoning between its action on this bacterium and its supposed action on that which causes scarlet fever we at once pass from the domain of fact into the region of theory. Nevertheless, I think it may be taken for granted that the same general laws which govern the attenuation and ultimate destruction of the known bacteria, though outside the body, will also govern, in a measure, these effects in the unknown ones, especially if their usual zymotic effects in a certain measure correspond. Nevertheless, one naturally feels at a grave disadvantage from the fact that a scarlet fever bacterium has never been discovered. Still I think no one doubts in these days its absolute existence, and that it partakes naturally of a virulent character, often modified, however, by a variety of unexplained circumstances.

Bearing in mind the potent action of carbolic acid on anthrax bacilli outside the body, I was anxious to discover what amount would have to be given to a patient suffering from anthrax provided the effects were similar, with a view of ascertaining if there were any similarity of dose between what would be required in this disease and in that of scarlet fever, the dose being regulated to cause (1) a hindering of growth of the bacterium; (2) to cause a cessation of growth; and (3) to kill outright; for I concluded that if there were anything like unity in amount my success in my prophylactic treatment would be accounted for. I therefore had a table prepared, based, first, upon the weight of the body. I then allowed 1-13 for the average amount of blood contained therein, and calculated therefrom the approximate amount of carbolic acid that would have to be administered to produce the three separate effects described; and afterwards compared the doses with the one that I was in the habit of giving to my patients suffering from scarlet fever at varying ages.

TABLE I.—Table showing the Effect of Carbolic Acid on Anthrax Bacillus and Compared with the Amount of Carbolic Acid given in Scarlet Fever.

Average weight of body in children and adults.	Amount of blood, 1-13 of weight of body.	Amount of carbolic acid given in scarlet fever in 24 hours.	Number of grains to hinder growth in anthrax bacillus 1-1250.	Number of grains to destroy growth of anthrax bacillus 1-850.	Excess or deficiency. To hinder growth.	Excess or deficiency. To destroy growth.
st. lb.	lb. Grains.					
3 3	3½	30	19½	28½	-|- 10½	-|- 1½
4 1	4½	36	25	36	-|- 11	0
7 4	7¾	60	43½	64	-|- 16½	— 4
8 0	8½	60	48	70	-|- 12	—10
9 13	10¾	60	60 1-5	88½	— 1-5	—28½
10 8	11½	60	64½	94¾	— 4½	—34¾

In the above table the amount required to kill the anthrax bacillus is omitted, being too large to administer to a patient; but it should be borne in mind that the bacillus was placed under the most favored conditions to establish robust growth,

that it had not the vital antagonistic condition of the blood to contend with, and hence a much larger quantity of carbolic acid was necessary to produce the above results. It will be perceived that to a child from three to five years of age I gave thirty grains of carbolic acid in twenty-four hours, which would be ten and a half grains more than is requisite to effect the hindering of growth of the anthrax bacillus, and one and a half more than sufficient to stop its growth. In children from eight to ten years, averaging 4st. 1 lb., thirty-six grains would be the amount given in the twenty-four hours, being eleven and a half more than necessary to effect the first purpose on the anthrax bacillus, and just sufficient for the second. Coming to those weighing 7st. 4 lb., the average weight of young people, the dose to scarlet fever patients would be increased to five grains, or sixty in the twenty-four hours; and here we have plus sixteen for the first purpose and minus only four and a half for the second. It is not till we come to 9st. 13 lb. that the amount given is barely sufficient to hinder growth, and twenty-eight and a half grains less than necessary to stop it altogether. In a person weighing 10 st. 8 lb.—the highest calculation made—there is only a deficiency of four and a half grains in the first column, but thirty-four and three-quarters in the second.

This table, of course, is but a basis upon which to ground certain broad inferences as to dose and effect; but I venture to think that the nearness of the dose in the first few years of childhood is of great value, demonstrating, as it does, that in the case of the anthrax bacillus its virulence would be seriously impaired by a dose smaller than that given in scarlet fever, and by analogical reasoning (on the ground that the bacillus of anthrax is of a very resisting nature) we might be justified in assuming that a very much smaller dose would be required to produce a far greater effect on the scarlet fever bacterium. There is, however, a very important point to be noted in the above table, and one apparently fatal to any conclusions we might wish to draw therefrom, and that is that in the case of the anthrax bacillus the requisite quantity of carbolic acid required to produce the various effects described in the experiments is added at once in its entirety with the nutrient material, whereas in scarlet fever it is divided into twelve parts, and these distributed over twenty-four hours. This apparently fatal objection is met from several points of view; first, I think there are good grounds for believing that the scarlet fever bacterium has much less resisting power than that of anthrax, and I am led to hold this opinion by observing the condition of the urine in a thoroughly carbolised patient. It must surely be conceded that there is some very powerful germicidal influence at work when the putrescent decomposition of urine—passed by a person suffering from this zymotic disease—is in many cases delayed for several days, and, secondly, prevented from assuming that highly offensive odor (so well known to us all), however long it is kept. We can hardly assert that there is a less antiseptic condition of the blood than of the urine, and if the blood is in this condition it must surely prove, in a great measure, inhibitory to bacterial growth and activity, remembering that "their power to produce disease may be influenced by a trivial alteration in the conditions of life." Then, though we know nothing concerning this bacterium, there is the ascertained fact that a person taking scarlet fever from a carbolised patient invariably has a milder attack, demonstrating that a feebler micro-organism has come into existence; and as it is reasonable to assume that the anthrax bacillus is of a more virulent type than that of scarlet fever a much smaller amount would be required to attenuate it—i. e., diminish its virulent power. Then we have to remember that the vital condition of the blood (that vital condition which is termed its life and exists only during the life of the animal) has an inherent antagonism to bacterial growth, therefore with the aid of a germicide of even feebler power than that used in experiments outside the body, bacterial activity

would be still further hindered; and it has been proved by experiments that it takes one-third less of carbolic acid to destroy bacterial filaments taken direct from the blood than is required for those grown in nutrient broth, and so we at length get within a measurable distance of a much more moderate dose to effect the attenuated and germicidal powers required by my table than is required for the anthrax bacillus.

There is one other remaining point of importance to be noted. Cohn states that bacterial increase by the usual method of fission is so great that if only two were produced from one bacterium every hour their multiplication would amount to the almost incredible number of 4772 billions in three days. Further observation proves that this fission occurs every twenty minutes. Now each of these, whether more or less in number, would be produced in a fluid antagonistic to bacterial growth, and not under circumstances which would probably weaken the germicide ultimately, but in a fluid which would every two hours be subject to a renewal of the germicidal power. Hence this progeny would in time become "attenuated"—i, e., lose more or less the power of exciting disease, and if not completely attenuated would, nevertheless, have diminished virulent powers, and so approach that attenuated virulence called a "vaccine;" for, as Pasteur remarks, "each cultivation of the attenuated bacterium is a 'vaccine' for the more virulent—that is to say, capable of producing a more benign malady" Why, therefore, should we acknowledge the power of carbolic acid to attenuate and bring into the condition of a "vaccine" the progeny of the anthrax bacillus, and deny the same power in the case of the bacterium of scarlet fever?

Such a line of argument would appear to me to be somewhat untenable, contrary to scientific truth, and irrational. I think, therefore, I am fully justified in my belief that carbolic acid given in scarlet fever does produce a virus capable of exciting a more benign malady, and without having absolutely witnessed with the physical eye the attenuation of the scarlet fever bacterium by carbolic acid, I contend that the results I have obtained do by analogical reasoning justify my assumption that such is produced, and that the bacterium so attenuated is, in fact, a "vaccine" endowed with all the beneficial results that accrue to such attenuated cultivations. In full confidence of these results ensuing I assert that isolation in scarlet fever is both unnecessary and inexpedient, and have in consequence given up isolating my patients, and feel that I am fully justified by the results of this method in the following cases:

Case 1.—This case was certainly one of the most unfavorable for experiment. The father of the children suffered from curvature of the spine, and, therefore, a tuberculous tendency in the children would probably be inferred. The mother was of the sanguine type, highly nervous, and constitutionally delicate. All the children were of the blonde type —thin, pale, lymphatic, always requiring cod-liver oil. The two elder ones had taken scarlet fever some two years previously, when all of the others were carbolised and isolated, and escaped infection. Last year in a fresh locality one of them contracted scarlet fever from that hotbed of zymotic contagium, the board schools. I immediately gave the child carbolic acid, also the remaining two, and on the second day instructed the mother to bring the unaffected children into the sick room. The next day I learnt that they were so terrified that they could not be induced to enter. However, on urging the matter strongly they occupied the chamber, with the result that both took scarlet fever. The first day the pulse and temperature ran high, but on the second the attack suddenly collapsed, and the children were well somewhat more rapidly than usual. In this case had not my confidence in the value of carbolic acid been unassailable I should have had doubts about the wisdom of the procedure (when I found the initial stage so violent), but I was able to assure the mother, who was much frightened, that all would end favorably, and she subsequently acknowledged the wisdom of the proceeding.

Case 2.—This case was equally instructive. On a former occasion two out of a family of four contracted scarlet fever, the remaining two took carbolic acid, were isolated, and escaped. Last year, in a new house and locality, one of these contracted the disease. The child was duly carbolised and then the other, semi-carbolised, was admitted to the room, spending all day there, and this was continued until a prolonged desquamation was completed and the house disinfected, yet this fourth child was never attacked.

Case 3.—Scarlet fever broke out in a house where there was a family of five children, only one of whom had previously been attacked, some three years before. After carbolising the patient, and giving the uninfected ones carbolic acid, these were admitted to the room, and remained in it the greater part of the day. One child only, one year old, did not take the acid. All have remained free from attack. Singularly the one who had previously been infected did not take any medicine, and she was attacked with a slight diphtheritic sore throat.

Case 4.—I saw a patient suffering from scarlet fever in a family of six. After carbolising the patient, and giving the remaining five the acid, they were all allowed in the room on the second day, and I saw three of them on the bed together on one of my visits. Nevertheless, none of them took it. The house was disinfected, and no further outbreak has occurred. This was six months ago.

Case 5.—A child, aged eight years, took scarlet fever, and in thirty-six hours the urine showed that she was carbolised. The next day a child barely two years old was attacked, and one and a half grains of carbolic acid was given every two hours. Her urine was soon discolored. The remaining child, aged four years, took carbolic acid twice a day, played and slept in the room, and so far remains well. The mother had never had scarlet fever, and she also took the acid. There is no evidence of further infection.

So far, then, I have exposed fourteen persons to the direct contagium of scarlet fever and only two have been infected, which is at the rate of about 14 2-7 per cent; and if facts are worth anything for the purpose of demonstrating truths I think I have fully proved that if a patient is duly carbolised from the initial stage (and I make this a great point), and all non-infected persons take small doses of the acid, the risk of infection is very small indeed, and if the contagion does find entrance into the system the attack is invariably mild. Why, then, should we isolate the patient? I contend that it is rather our duty to do all that we can to spread the contraction of this attenuated virus to all the other children in the house, knowing that they will have a mild attack, be immune for the future, and the chance of a prolonged illness is nil, whilst that of the appearance of a sequela is about one to 1000. But this is by no means all. If they escape infection they may at a later period contract, perchance, a virulent attack with all the subsequent disastrous consequences. One such case is painfully present to my mind.

Case 6.—There was a family of two only—a boy and a girl. The boy took scarlet fever, was carbolised, and when desquamation was completed the house was disinfected. The girl was semi-carbolised and did not come into contact with her brother until then. Some time afterwards she contracted scarlet fever at school, had the usual vomiting and purging, which the parents attributed to a cold, and she was allowed to go out on a bleak day. The scarlet fever was suppressed and she died a few hours after I was called in.

This case has made me consider the question whether it is quite wise to semi-carbolise the unaffected children at all in a house where scarlet fever has made its appearance, but rather to allow them to enter freely the sick chamber, in the hope that the attenuated virus from the carbolised patient (without being further attenuated in the semi-carbolised) will be sufficient to induce a mild attack, for it is certain that when semi-carbolised the risk of receiving the contagion is very small indeed. On the other hand, we can never be quite certain what response a child's

system will make to a zymotic poison. We have all seen mild cases give rise to virulent ones in almost every zymotic. We see it also in vaccination. Two babies apparently alike in physical constitution may be vaccinated from the same vaccine pock, yet on the eighth day one will present a small, well-defined inflammatory area around the vaccine, whilst the other will exhibit a hard indurated inflammation from shoulder to elbow. The introduced zymotic vaccine has been benign in one case, but has produced a virulent type in the other. I have therefore concluded for the future to diminish the dose to the unaffected to about one grain, in the hope that this will allow of infection, and, if so, on the earliest appearance to at once give the full dose for scarlet fever. The only exception to this that I think of possibly adopting, after more experience, is that if the first outbreak shows a decidedly mild type to give no carbolic acid to the unaffected, for it shows that we have but a feeble micro-organism to deal with; whereas, if the first case shows anything like the virulent type then full semi-carbolism should be at once adopted.

The more, then, we isolate the uninfected the less chance is there of this attenuated bacterium taking up its abode in them and producing a more benign malady, and so protecting them for life. Hence isolation is quite unnecessary. And it is inexpedient. True, I have laid it down as a law not to be broken that the semi-carbolised children when mixing with the enfeebled patient shall not hold any communication with others foreign to the household, and that the open-air exercise necessary for them shall be taken in the garden. Where this is impossible, few gardens existing in overcrowded cities, I have directed those in charge of them to allow no inter-communication with others in the street, and I do this—though it is quite contrary to my theory and belief—because I do not think it right to force my opinions, however beneficial they may be, upon others. Nevertheless, I hold that the more freely the contagion from a carbolised scarlet fever patient is diffused the better it will be for the welfare of the community at large, and if this course is universally adopted scarlet fever will in time be no longer the dreaded zymotic it is at present. I am quite aware that I am making very startling statements, that deeply-rooted prejudice will both hinder and thwart the inauguration of this plan of treatment, that many will look upon it as absolutely Quixotic, and that it will take a long time to overcome both professional and public sentiment, so dreaded is the name of scarlet fever. Nevertheless, scientific therapeutic medicine must prevail in the end.—London Lancet.

STRONTIUM AND ITS SALTS.

By Alexander B. Briggs, M. D. Read before the Washington County (R. I.) Medical Society, July 8, 1897.

That the profession have in strontium salts, remedies of great therapeutic value is my firm belief, and my experience with them in practice during the past two years has very materially strengthened my faith in have been of such signal help to me in conversation with quite a number of my colleagues, to find that they are so seldom prescribed. That they have been of such signal ehlp to me in my professional work, and that so little has been said and written about them of late, is my only excuse for bringing the subject before you to-day.

There seems to be an impression that there is more or less danger in the use of the strontium salts from their toxic effects; this is wholly an error, as has been proved by the researches of such men as Professor Germain See, Dr. Constantin, Paul and Dujardin Beaumetz, who found

that in every instance where conflicting reports and toxic effects have been reported from their use, they were due to the presence of barium, which is found in the commercial product. When I have prescribed these remedies I have always used the pure salts (Paraf-Javal) or their solutions prepared by P. Chapoteaut, of Paris. At present I think strontium and its salts are unofficinal in the Pharmacopeia, but, nevertheless, the discovery of their therapeutical properties, and the good results in therapeia that have followed their administration, would warrant us in the belief that as they become better known and more often prescribed, they will become more highly appreciated.

not remove the pathological condi-

The salts that I have most frequently used are the bromide, iodide and lactate, and I will speak of them in the above order.

Bromide of strontium is a colorless, transparent salt, occurring in hexagonal crystals. It is somewhat delinquescent. The dose is from five grains to one drachm. It is not incompatible with the bromides of the alkalies, and it is soluble in both water and alcohol; it can be administered with all the alcoholic tinctures and most fluid extracts. Its indications for use are those of bromide of potassium, and while it is a perfect substitute for the potash salt, its prolonged use, even in large doses, does not seem to produce the untoward results so often noticed in the use of the former salt. The gastric disturbances, the cutaneous eruptions so often noticed in the use of the potash salt, are not seen when the strontium salt is used; again, the depressing and systemic agitation from the prolonged use of the potash, which all have encountered in practice, I have never seen from the strontium bromide.

In cases of epilepsy and other spasmodic neuroses, where the potash salt has been given for a long time, the patient thereby becoming insusceptible to its action, the strontium salt may be supstituted with safety and great advantage.

In many diseases of the stomach, the bromide salt will be found of especial benefit. In three obstinate cases of vomiting of pregnancy in which I have prescribed the drug during the past year, two received signal benefit, while in the third case it seemed to have no marked effect upon the vomiting, as the stomach would not retain the remedy; in this case it appeared to have some reflex effect upon the vomiting centre, when given in drachm doses per rectum every six hours, and it was so administered for several days in connection with other treatment.

In one case of hyperesthesia of the stomach that accompanied and followed ulceration for several weeks after I was satisfied the ulcer had healed, the neuroses promptly yielded to ten-grain doses of the drug, given one half hour before food, and there was no return of this most distressing symptom.

A patient suffering from exophthalmic goitre about a year ago, consulted a specialist in regard to a severe tinnitus aurium from which she suffered; bromide of potassium was prescribed in full doses. At first the patient seemed to get some relief from the remedy, and it was continued for several months; during this time the patient developed severe mental excitement with true delusions. Suspecting the remedy, it was discontinued, and in a few days the mental excitement subsided with a marked increase of the tinnitis. At this time strontium bromide was substituted, with full as good effect upon the symptom, and the patient has continued to take it during the past three months, with no return of the mental excitement; the delusions continue, however.

We are occasionally consulted by a class of patients that are plethoric; who complain of a general feeling of lassitude, frontal headache, constipation, a disposition to sleep all the time, various skin diseases; the urine is loaded with urates and frequently the heart's action is feeble, due to commencing fatty degeneration; these patients are sometimes fat, other times lean, but are always overfed. Any or all of these symptoms may exist, but will surely be relieved by the use of bromide of strontium administered before meals,

accompanied by a restricted diet.

In other cases of digestive disorders accompanied with acid fermentations, and the formation of the gases of decomposition with chronic diarrhea, the bromide has given me excellent results.

Strontium iodide occurs in colorless, transparent, hexagonal crystals, having a bitter, saline taste, freely soluble in water and alcohol. Like the bromide salt it is incompatible with solution of the sulphates and carbonates of soda, potash and lime, but is not incompatible with other iodides.

Iodide of strontium is an excellent tonic and alterative, and may with safety be prescribed in any case where the potash salt is indicated. In quite an extended use of the drug I have never known it to induce the gastric irritation or palpitation of the heart so common in the administration of iodide of potash in full doses. Its effects in catarrhal asthma, chronic bronchitis and cardio-pumonary affections have been most satisfactory. The drug is quickly eliminated by the kidneys, the strontium seeming to supplement the action of the iodine by its own peculiar action on the functions of nutrition.

In connection with the above I wish to report the following case:

Mr. B., aged about seventy, has had a catarrhal bronchitis, accompanied with asthma, for the past ten or fifteen years. At the time the strontium salt was prescribed he presented the following conditions: Catarrhal bronchitis of both lungs, with paroxysmal attacks of asthma, bad cough, with profuse expectoration; has been unable to lie in bed for over two years; body emaciated, appetite poor, urine scanty, no sugar or albumen present, marked artero-sclerosis edema of both feet and legs; pulse one hundred to one hundred and twenty per minute; mitral insufficiency, with dilatation of the heart; takes little food. For several weeks, from one to three pints of water had exuded from the feet and legs every twenty-four hours. The patient had been treated with iodide of potassium at various times, always with considerable relief, but he had been unable to continue the drug for any great length of time or in anything like the full dose, on account of the gastric irritation which it produced. We began the treatment with ten grains of strontium iodide every six hours; subsequently the dose was increased to twenty grains. Within one week all the symptoms had improved. The cardiac functions were better performed, the asthmatic attacks had subsided, and within one month the patient was able to move about the house. The remedy has been continued about every other month during the year, and I have seen the patient at work in his garden within the past week.

From my observations of the action of the iodide of strontium, I am satisfied that it is safe to prescribe it as a substitute for the potassium salt, and while the dose is about the same, the remedy can be pushed to a dose far beyond the limit of safety with the potassium salt, and that without fear of producing symptoms of intolerance.

Strontium lactate is a white granular powder, odorless, and has a slightly bitter, saline taste. Soluble in about four parts of water and freely soluble in alcohol; dose from five to sixty grains. Cases are reported where as much as one hundred and sixty grains have been administered with no untoward effects. The lactate has been often prescribed for Bright's disease, both in acute and chronic forms, with excellent results. Constantin Paul concludes that it is indicated in parenchymatous nephritis, the rheumatismal and gouty forms, but is not useful in interstitial nephritis. Dujardin-Beaumetz confirms these statements and says that when he had administered the remedy in cases of albuminuria, he has obtained uniformly a reduction in the quantity of albumen passed; that while it affects the most important symptoms favorably, it does tion. The remedy possesses the advantage over other drugs in the treatment of this disease, in that it promotes the appetite, aids digestion and assimilation, and can be administered for a long time continuously with no bad effects.

In two cases of albuminuria of pregnancy, in which I have made use of the lactate, the most gratifying results have followed. In one case where there was severe headache, insufficient urinary discharge, general dropsy and the symptoms of uremia present, and where diuretics, purgatives and diaphoretics had signally failed to give relief, the lactate was substituted in fifteen-grain doses every four hours, with a marked diminution of all the symptoms and with a decrease of more than one-half the amount of albumen excreted within forty-eight hours. The improvement in the general condition of the patients was noted from the beginning of the treatment.

In several cases of cystitis in the aged, due to hypertrophy of the prostate, the drug was given in connection with buchu with marked amelioration of the symptoms. Although the lactate does not seem to possess any diuretic properties, nevertheless its action upon the urinary organs seems to be salutary in the extreme.

Professor Germain See, in the treatment of affections of the stomach, considers the strontium salts as far superior to the alkaline carbonates.

Bartholow states that the phosphate of strontium appears to rather improve the appetite, promote the activity of assimilation and increase the body weight. The phosphate more especially is a reconstituent, an agent having the power to increase the nutritive energies. Recently the salicylate of strontium has been highly extolled in the treatment of rheumatism. I have, however, had no experience with the drug.

For a number of years I have been satisfied that many of the untoward symptoms that follow the use of the potash salts in full doses are due as much or more to the potash which they contain, as to the iodine or bromine. As we all know potassium is always a poison, even in small doses when often repeated. In bromide of potassium, potash constitutes one-third of the salt, and when given in large doses it cannot fail but exert its toxicological effects.

Well-known authorities have long ago demonstrated that there was far less danger in the use of the sodium than the potash salts.

If we have in the strontium salts remedies that can be used in full doses and for a long time without the unfortunate effects that sometimes follow the use of the potash salts, it behooves us to give our patients the benefit of the fact.

CLINICAL NOTES ON LACTO-SOMATOSE. (1)

BY DR. A. SCHMIDT, INSTRUCTOR IN THE UNIVERSITY OF BONN.

At a meeting of the Berlin Medical Society, June 2, 1897, Dr. G. Klemperer read a paper (2), the purport of which was that the greater number of artificial food-products, with few exceptions, were unnecessary, since they gave no better results than could be obtained more simply, and, above all, more cheaply, in the vast majority of cases, by a judicious selection of ordinary articles of diet. This view was justly contradicted in the discussion by various physicians. For there can be no doubt that in clinical practice these artificial foods can less be dispensed with than many medicaments or therapeutic measures, which not merely from a theoretical standpoint must be designated as superfluous. In the employment of artificial nutriments it is erroneous always to ask how many calories of animal heat, or how many grammes of readily assimilable albumin is thereby being furnished to the organism. As was emphasized by several speakers in the discussion, it is much more correct to re-

1. From the Medical Clinic of Bonn, Director Prof. Schultze.

2. Berl. Klin, Wochenschr. No. 26, 1897.

gard artificial nutriments as substitutes for ordinary foods in cases where these are not tolerated.

If from this point of view we seek for such substitutes, especially in chronic gastric and intestinal diseases, the first requisite demanded of a preparation is that its taste is agreeable and that it has no irritant action upon the digestive tract. It is in this particular, however, that all artificial foods are more or less unavailable, at least those intended as substitutes for albumin. Even somatose, doubtless one of the best preparations in the market, is not free from objection as regards the latter point; if taken in large doses it excites diarrhoea in some persons, particularly those having a sensative intestinal canal.

Somatose is prepared from meat. Recently the manufacturers (Farbenfabriken vorm. Friedr, Bayer & Co., of Elberfeld) have prepared from the caseine of milk, a somatose-preparation, which, aside from the advantages peculiar to milk albumin, is distinguished from meat somatose in that it is freer from salts. Its taste is slightly different from that of meat somatose, but not less agreeable. Milk somatose in large doses, however, also causes diarrhoea, and apparently more readily than meat somatose.

In order to adapt milk somatose for use in children and patients with weak and diseased digestive organs, it has been given an addition of a small quantity of tannin (5 per cent.), the tannic acid, however, not being simply mixed, but present in a chemical combination.

This combination of somatose with tannic acid possesses no styptic qualities. The slight content of tannin only serves to neutralize any irritant effect of lacto-somatose, and to convert it into a slightly astringent nutritive preparation which can be employed with benefit for children and persons with weakness of the digestive organs. This product is prepared after a process devised by Dr. Eichengrun, and a simple test will show that the tannin is in chemical combination. (Samatose is insoluble in alcohol; tannin is soluble. By boiling lacto-somatose with absolute alcohol no tannin is separated.)

Lacto-somatose was furnished to the Medical Clinic, of Bonn, in large quantities, and has been tested by me in a number of appropriate cases. The preparation is indistinguishable in appearance from meat-somatose. It dissolves readily and completely in hot water. Its solution is slightly darker than, but identical in taste with, simple lacto-somatose. Healthy persons are able to take it in considerable doses (about 50 gm. daily) for a long time without any concomitant effects upon the intestine. In some cases, after continued use, an aversion occurs if its mode of administration is not varied in a suitable manner. It may be given to advantage in one or two teaspoonful doses dissolved in hot water with addition of some meat extract.

The chief field of usefulness of this tannated somatose is in the various chronic diseases of the digestive tract, and above all, in the digestive disturbances present in enteroptosis and anemias, and resulting from atony of the muscular coat of the stomach. As is well known, these patients are extremely sensitive even as regards trivial errors of diet. Loss of appetite, a feeling of fulness, eructations, flatulence with gurgling, and colicky pains, constipation alternating with diarrhoea are regularly present, and the various remedies are apt to do more harm than good. After the use of lacto-somatose, three teaspoonfuls daily, I have observed exceptionally good results, the stools becoming regular, and the other disturbances being simultaneously relieved, as a rule. This regulation of the stools occurred particularly in cases having a tendency to diarrhoea, but also manifested itself in a remarkable way in cases of constipation if small doses were taken for a long time.

In cases of chronic enteritis of catarrhal nature, aside from improvement of the motor function of the intestine, a favorable influence upon the pathological secretion of mucus was noted. I would mention especially three cases of membranous enteritis, and one case of colica mucosa, in which after use of the

preparation the stools assumed a normal character within a short time, although the patients (at least the three first mentioned) had previously been treated for a considerable time, according to various methods without success.

Lacto-somatose has also proved an efficient astringent nutrient in cases of enteritis of tuberculous origin, if not in too far an advanced stage. It is here that a preparation is of value which, while unirritating in itself, will aid in the removal of conditions of irritation. In the milder cases of tuberculous diarrhoeas, this astringent effect is manifested in ordinary doses; in the more severe only when the dose is considerably increased, up to about three tablespoonfuls a day (about 40 gm.). There is nothing a priori to contraindicate the use of such doses. One of my patients took 100 gm. within two days, without the least inconvenience. In general practice, however, the indifferent taste of the preparation prevents its administration for a prolonged period. Hence it is advisable in obstinate diarrhoea to administer small quantities of the customary styptics besides this preparation.

According to my experience, lacto-somatose, owing to its small content in tannic acid, should not be employed as a styptic. In acute intestinal catarrhs particularly it is inefficacious, as well as in severe diarrhoeas of chronic character, especially those of nervous origin or occurring in the course of chronic nephritis. There is nothing to prevent its employment (in connection with styptic remedies) in such cases, where it is necessary to improve the general nutrition. Aside from the conditions already referred to the following require mention Typhoid fever and chronic wasting diseases in children attended with disturbances of the intestinal functions.

In typhoid fever, lacto-somatose has been administered systematically in fifteen cases. Aside from two cases in which it was vomited it was always well borne even in the acute stage, and in amounts of three tablespoons daily. Under its administration a moderate decrease in the diarrhoeal passages was observed in most cases; constipation occurred only once during convalescence and disappeared immediately after the dose had been reduced. It would of course be incorrect to ascribe this circumstance to the astringent effect of the preparation. At any rate, it appears to me noteworthy since it demonstrates the absence of any irritation from this preparation.

Among the exhausting diseases of children, lacto-somatose is especially adapted for the treatment of rachitis, which, as is well known, is frequently complicated by diarrhoea. Excellent results were especially noted when it was given conjointly with cod liver oil and phosphorous. As regards other diseases of children my observations are not yet sufficiently extensive, but if employed according to the proper indications successful results may be expected.

Formulating my opinions concerning the value of lacto-somatose, I would say that it has proved serviceable as a slightly astringent nutritive preparation in patients with weakened or diseased digestive organs. Its utility in typhoid fever also deserves attention. To what extent the derivation of the preparation from the casein of milk, aside from the contained tannin, is concerned in the favorable results must remain unanswered. It is readily conceivable that the original material must influence the digestibility of the preparation. In comparison with meat somatose lacto-somatose has a slighter content of salts.—Munchener Medicinische Wochenschrift, No. 47, '97.

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RUPTURE OF THE UTERUS.

Rare as the accidental rupturing of the uterus is, during the application of the natural forces of parturition at term, it is still more rare as an occurrence in natural abortion.

A case of this sort has recently occurred in the practice of one of my colleagues, who kindly gives the following notes on the case:

The patient, a healthy woman of about 30 years, the mother of three children, two of which are living, while at the third month of gestation aborted from natural causes. During the birth of the previous child the os uteri was torn on two sides, one slightly and the other clear through the internal os, and which undoubtedly caused the abortion now under discussion, as no means were utilized to induce it, the parents being desirous of children.

The fetus had been born before the doctor arrived, and his first manipulation was with the intent of removing the remaining membranes with his fingers, no instruments being at hand. To his surprise he found he could pass his fingers through a rent in the uterine walls into the abdominal cavity and come in contact with the intestines. At this time the patient seemed collapsed. Aid was at once summoned and the patient etherized, and by a laparotomy the rent in the uterus, which was found existing from the point of old laceration to the fundus, was stitched. The uterine tissue was considerably soft. She reacted well from the operation without abnormal temperature or other symptoms, except a rapid pulse. However, on the third day thereafter she gradually collapsed and died. No autopsy.

It would seem that pure muscular contraction was the cause of the rupture in this case, probably aided by some degenerative process, which so softened the tissues as to make them extremely friable. No contracted pelvis existed and, indeed, if it had it would not have been a factor of importance at the third month of gestation in a woman who had successfully borne children. This case would seem incredible had we not the full knowledge of it, and nowhere can we find, in the literature at our command, a parallel case.

F. S. P.

SEX DETERMINATION.

The medical journals and the lay press are at present in a furor over Shenck's "new" theory of determining the sex of the unborn. We quote the word new because in our humble opinion the theory is not only as old as the ancient greek philosophers, but exploded as well.

Shenck is a German embryologist, and has advanced, or rather revived, the theory that paternal superiority determines the male sex governed by good nutrition in the mother. He goes so far as to estimate the number of red blood cells of the father in excess of those of the mother, and attempts to influence the product of conception by bringing the number of blood corpuscles in the mother to the standard of the male for a boy and diminishes them for a girl.

While this theory, old as it is, is very pretty, and no doubt more or less philosophical, practically the opposite appears to be also true. It is patent to most physicians of observation that phthisical mothers oftener produce boys.

The writer, in looking over his own obstetric records, can determine but little difference as to sex in relation to the health and nutrition of the mother. Those notably of poor nutrition have, in the majority of cases, borne boys, but not without exceptions. However, the furor of Dr. Shenck's theory will probably have its fruits whatever they may be, for, as the matter has been given widespread publicity through the lay press of the country, we may expect during the latter part of the year an enormous increase in our infant population.

HOSPITAL MANAGEMENT.

In the issue of our valuable contemporary, the Medical Record, for January 22, 1898, there appears an able contribution from the trenchant pen of Dr. Arpod Gerster, which deals briefly with hospital management and other issues quite foreign to this subject.

The Doctor would turn our hospital system up-side-down, clear out the politicians and lay managers; turn adrift the free-service men, and concentrate the hospital management under the sole management of medical men. There would be a life tenure of office, and rotation in the in term service should end, as well as competitive examination as a test of fitness. Indeed, the Doctor in a sweeping denunciation, declares that "the prevailing system of medical hospital service is effete and must be reformed."

"Honor men and those who have passed written and other examinations with flying colors often turn out to be perfectly worthless in the service, and competitive examinations of candidates for house staffs no test of fitness," de declares.

This is strong and sweeping language, which deserves careful consideration. But we fear from its intense rancor that the writer must have recently had some friction with a despotic hospital superintendent and was worsted.

It is claimed that "the present beggarly system is inexcusable in hospitals, and that a well organized, decently paid medical service is a necessity."

The foundation stone of our hospital system is individual liberty or, as the English put it, "the liberty of the subject."

The father and founders of this republic revolted and repudiated the hateful, abhorrent monarchical system of Europe.

Democracy in its broad sense has been the watchword, and the profession of this country must be on the alert that a detested, hateful

aristocracy in medicine is not created, as was attempted by the late sham reform government in New York.

There can be no question that Dr. Gerster's views, though radical, are not without force, but they are so extremely exotic and impractical that they never will take root on this soil till the work of Washington and Lincoln is undone. Begging for a hospital is certainly no disgrace, as the Prince of Wales has been seeking alms for hospitals over the vast dominions of the British empire during the past year.

The only criticism that one can make with respect to the radical character of Professor Gerster's essay is that it was not quite sweeping enough, inasmuch as he well shows that the people and profession alike are being demoralized by too many hospitals, and that it probably would be better for all if they were turned into workshops and the sick and injured attended at the State's expense in their own homes.

VISITING NURSES.

It is a self-evident fact that there are limitations to trained nursing, and that there is a field which has not yet been fully covered by the methods in vogue.

A somewhat new departure in this line of work is designed to meet this want and thus far has given complete satisfaction. The scheme is well illustrated by a correspondent to the lay press, whose contribution is here given in part. Mrs. Sedgwick states:

"I refer to a form of house-to-house visiting by trained nurses in the homes of those who are able to pay a small sum for skilled care, but on account of its cost cannot afford the whole time and strength of a trained nurse.

"This form of trained nursing was first publicly recommended by Miss Diana C. Timben, assistant superintendent of the New York City Training School for Nurses, who says of the women thus engaged: 'They should in fact become visiting nurses, but visiting nurses not employed by a society paying them a salary to visit the poor, but visiting nurses employed by the doctor, to take care of patients able to pay the nurse for services rendered.'

"These nurses have a fixed schedule of prices for their service as follows: One to two hours night and morning, $1 a day, or 50 cents if only once a day; prepare patient for minor operation, $2 to $3; remain with patient all night, $2 to $3. Obstetrical cases—be present during labor, six hours or less, $3, and 25 cents additional for every two hours, up to $5. Care for patient and baby two hours daily for one week, $6 additional. Car fares charged out of town.

"Nor is it only the people of small means who may be benefited by such nurses. In a slight illness it might well happen that the skillful attentions of a trained nurse for two hours at morning and night would be all sufficient and far more agreeable than the constant residence of a nurse who had too little to do.

"Or the convenience would be great of being able to have one of these nurses to care for a patient during the necessary hours of rest and exercise of a regular nurse, or in a severe case to take the night work and thus avoid the employment of a regular second nurse."

This plan has for some time been in active operation in several of the larger cities in New York State, and has continued to receive the indorsement of the leading members of the medical profession.

There is no reason why it should not be succesfully carried into effect in cities of moderate size as well, where a considerable number are constantly in need of skilled nursing, but are, for pecuniary and other reasons, often unable to secure the continuous attendance of a trained nurse.

—New England Med. Monthly.

WAYSIDE NOTES.

BY ERNEST B. SANGREE, A. M., M. D.

I have lately had called to my attention down here in Nashville, a curious type of nervous trouble, which I respectfully recommend to the alienists and neurologists for explanation. I have none to offer. I was taken to see what is known as a "goosey" nigger. I do not enclose the word "nigger" above within quotation marks because the word is of too good and common standing here. The peculiarity of this darkey is that he cannot endure having anything pointed at him. If a finger or stick is pointed towards him he throws up one or both arms to defend himself, cries out in terror, "ducks" his head and runs away as fast as he can leg it. He is especially excited by being touched on the back. His comrades got him to dance a jig in a freight car and during its performance one of them punched him lightly in the back. Instantly he stopped, cried out, rushed from the car down the platform and through an open door into a mill. They tell me that no matter what the man is working at, a touch on the back will cause him instantly to stop and run away with every gesture and expression of fear. The sight of a mouse or a toad almost drives him into convulsions. At quite a distance off, and when the darkey was not looking, if one would suddenly ejaculate an aspirated 'pfwit," he will throw up his arms, duck and run wildly away just as when touched. I am told also that it is dangerous to stand near him when he is excited in one of these different ways, for occasionally his nervous manifestation takes the form of turning upon the person nearest, and striking him or else nearly choking him to death. I was told by a young man that once on a hunting party they had with them a boy of the "goosey" variety, and one night when a finger was suddenly pointed at him the boy instantly and involuntarily jumped into the camp fire and was badly burned.

I was told of another who while on a high stepladder had a finger pointed at him and instantly sprung off the ladder into a chandelier, smashing it all to pieces. The main characteristic then seems to be a nervousness manifesting itself in uncontrolable muscular movements. But what could be the mental condition of an otherwise apparently sane individual who is so violently affected by the pointing of a finger or a touch on the body?

RUSH MEDICAL COLLEGE AND THE UNIVERSITY OF CHICAGO.

It will be of interest to the faculties of the university to learn that at its meeting December 29 the university trustees, in response to a petition from the trustees of Rush Medical College, voted to enter into affiliation with that college. The date proposed for the consummation of the relationship is June 1, 1898, but it is specifically stipulated that the affiliation shall be dependent upon three conditions.

The first condition is that the board of trustees of Rush Medical College shall be reorganized. At the present time a great majority of the trustees are physicians, who are at the same time members of the faculty. This is acknowledged to be an unfortunate arrangement. The new trustees will be representative business men of the city of Chicago, who have no pecuniary interest in the income of the college.

The second condition provided that the requirements for admission to the college shall gradually be increased, until, in the autumn of 1902, only those who have completed the freshman and sophomore years of

regular college work shall be admitted. This proposition, which had already been adopted by the present trustees of Rush Medical College, is a most significant step in the history of medical education.

The third condition relates to the present debt of the college, which amounts to $71,000. It is provided that affiliation shall not take place until the debt has been paid.

It will be the aim of the new trustees, with such assistance as the university may furnish, to develop the work of the medical college along university lines. In the history of Rush Medical College it has always been found that with every increased requirement the number of students has increased. It is not expected, therefore, that the number of students will be diminished by the application of the new requirements for admission. It is confidently believed that college men from all parts of the country will be glad to enter an institution to which only college men are admitted.

The history of Rush Medical College during fifty years is one of the most interesting and splendid of any that has been enacted in the educational work of the West and Northwest. Its name to-day in medical circles is held in high honor. It is, of course, to be understood that affiliation does not mean organic union. The degrees will be the degrees of Rush Medical College, not those of the university.

The proposed affiliation, however, will give to the university a general supervision of the educational policy of the institution. The trustees of Rush Medical College will continue to be an entirely separate corporation. The trustees of the University of Chicago assume no financial responsibility in connection with Rush Medical College.

This affiliation is a part of the general policy of the university, in accordance with which already many institutions stand in close relations with the university. Whether Rush Medical College will ever become the medical college of the university time will show.

It is important, however, to note that even with this affiliation of Rush Medical College the university remains without a medical school of its own. The field is therefore open for some friend of humanity to devote one or two millions of dollars for the endowment of a great medical school, the income of which shall be devoted to special research, with which under any circumstances Rush Medical College would work in the closest co-operation. With the moral assistance thus gained the medical college will place itself in a position which, under ordinary circumstances, it could not otherwise have occupied. In thus lending its aid to the medical college the university performs in part the function for which it was established. In entering into this new relationship with a faculty composed of eighty members, the faculties of the university will join heartily in the wish that even more may be accomplished than it expected.

A CORRECTION.

Our attention has been called to a printer's error occurring on page 26, of January 15th issue. The first three words of Dr. Lewis' article should be read "Miseris succurre disco."

INQUIRY ON COCOA.

Dr. W. Golden Mortimer, of No. 504 West One Hundred and Forty-sixth street, New York city, is making interesting investigations on the physiological and therapeutical uses of erythroxylon coca, for which he asks the assistance of our readers. On application he will forward blanks for filling out the observations noted in using the drug.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

CAUSE OF METRORRHAGIA IN UTERINE FIBROIDS.

By N. Tailhefer.,

(Gazette De Gync. Jour. de Med., Dec.).

Observations on which the foregoing were made are from the service of M. Jeannet. They will not be given in detail, but only the principal features. We may often notice that when an intra-uterine fibroma movable and pediculated swings easily in the uterine cavity, there may be little discomfort and possibly no hemorrhage between the periods.

It may be well to remember that a close analogy subsists between uterine fibroma and hypertrophied prostate. In neither the simple augmentation of any organic structures produces any specially disagreeable consequences until infection sets in. In fibroma trouble comes with the menstrual epoch, intense congestion, germ invasion, endometritis and subsequent hemorrhage through the engorged surface capillaries.

Let it then be noted that the chief role in pathogenic changes is played by bacteria, since they are quite similar to what we find in the bladder, where we may note the crystalization and agglomeration of vast calculi without producing a trace of cystic inflammation until, after coitus, congestion of the prostate with infection follow.

But where do the germs come from in these cases of neoplastic endometritis?

Assuming the endometrium healthy, they develop from those which have remained dormant in the mucous membrane, as it is well known that many pathogenic microbes give no trouble until called into activity by some local blood or vascular change dependent on local or general conditions. If we will examine carefully in these cases we will observe that the arteries in the uterine walls have lost their elasticity and the vessels are reduced in calibre, though increased in number. The venous current is stagnant, and in time the degree of congestion may become extreme—in fact, a state physiologic in copulation in the male and in menstruation in the female.

The infective agents in these cases are various, either haematogenetic, specific or atmospheric. The two last are the most common. It should be remembered that the uterine cavity through the vagina is exposed to contamination from the air. Next, such infective elements, it should be remembered, are quite inert except with the production of congestion, the statis exudation and interstitial sclerosis. This vascular change soon makes its influence felt through a secondary affection involving the glandular secretions. Borrisow, in his late histologic work, deals with this complicating phase succeeding superficial endometritis by glandular and interstital participation, when the whole superficial layer may be thrown off and infection penetrate deeply into the underlying strata.

Metrorrhagia in uterine fibroids is dependent on two principal factors—first, the periodic congestion of menstruation, and, secondly, on infective processes called into activity by perverted vascular action.

(Note by the translator.)

It is said that of late years, and since the number of marriages has become greatly reduced in America, and small families or no family at all follow marital unions, uterine fibroid seizes on about 25 per cent. of the females. Their cause then is in great part physiologic, or dependent on perversion of natural functions. It is important to note this close affinity to adenoid prolifications and their occasional tendency

to degenerate into malignant changes. But their course on the whole is very erratic, as they sometimes advance and recede in volume; they are quite painless when of diminutive size. The sub-mucous may be always thoroughly and radically inoculated by the vagina. (T. H. M.)

LUXATION OF THE HIP, COMPLICATED BY FRACTURE OF THE FEMUR.

By M. Got. Schwartz, Hospital Cochin.

(Journal Des Practiciens 13 Dec.,97.)

Traumatic luxation of the hip is comparatively rare, for even in a great hospital service we may not see one in a year. But rarer yet are those attended with the complication of fracture. Seven years ago we saw a case of forward dislocation with a simultaneous fracture through the neck of the femur, and very recently another case of luxation on the iliac plate, with a fracture just below the great trochanter, came under our care. In the latter fracture had at first been overlooked. It is needless to say that in these cases accurate diagnosis may be very difficult. Our first case was seen in 1890, a woman, 73 years old, who fell on the sidewalk. She had cardiac disease with arterio sclerosis; had great dyspnoea and palpitation when seen.

On examination the left lower extremity was found at nearly right angles with the pelvis; posteriorly, there was an enormous sanguineous extravasation.

Over Scarpa's triangle there was marked tumefaction, where the movable head of the trochanter could be felt.

When the limb was brought into line with the opposite one crepitus was distinct. This made no change in the position of the femoral head trochanter mounted upward, and under the inguinal tumor, but the there was a shortening of four centimetres. Everything, in fact, pointed to an unmistakle fracture-dislocation.

Now, the question of treatment arose. What could be done with a debilitated old woman, already suffering from cardiac disease, in the way of using violent force? Twenty-six hours later chloroform was given, when the diagnosis was incontestably proven. By manipulation it was possible to roll the displaced femoral head into the cotyloid cavity. Now a plaster adjustment was employed, with weights making tension from below. Briefly, it may be said that after two months perfect union was secured. There was not more than one centimetre of shortening, and good use of the limb was secured. This subject was a fairly good one for results in this class of fracture, as she was of a thin, spare frame, which enabled us to precisely define the lesion and successfully treat it. Hamilton, in dealing with this subject, says that coxo-femoral fracture dislocation is very rare; some few are reported, but of these confirmatory evidence is not always provided. Heretofore the diagnosis of this lesion has not been regarded by any means easy, especially in fat subjects.

It is important, however, in doubtful cases, to employ every means in order to ascertain just what the nature of the disorganization is. In fractures within the capsule, under any circumstances diagnosis is often extremely difficult and quite impossible when there is impulsion of the fragments.

But now we have the skiagraph, which often proves an important supplementary aid in many doubtful cases.

The surgeon in dealing with coxo-femoral fracture dislocations will always first endeavor to secure reduction and, secondly, fix the fragments. (Jour. Des Practiciens, 15 Dec., '98.)

IS NOT THE MORTALITY FROM SURGICAL DISEASE LARGER THAN NECESSARY?

BY CHARLES M'BURNEY, M. D.

With anesthesia, asepsis, and greatly enlarged and improved operative surgery, the immediate danger to life from surgical interference has very greatly diminished, so that increased confidence has become established in the minds of

surgeons, physicians, and patients that few cases of surgical disease can reach such an advanced stage as entirely to preclude the possibility of relief by operation. And it is true that many conditions which formerly were necessarily fatal because they were considered to be beyond the reach of surgery are now safely operated upon and more or less completely relieved.

Each partial success in these desperate cases is a very proper source of pride to the surgeon, and each one stimulates him to still greater effort to save those who are nearly moribund. The more desperate the condition and the greater the risk, the more intense his interest, provided the possibility of success by care and skill exists. This feeling is to a certain extent shared by the physician, who now, much more frequently than in former times, calls upon the surgeon for aid, even in very desperate conditions. In this way every surgeon becomes familiar with cases for which he can do little or nothing, because the disease has already gone too far.

During the last few years I have been especially struck with the rapidity with which many cases of surgical disease advance from a condition that is entirely curable to one that is entirely incurable, or from one that can be completely and radically treated to one that can be only partially relieved. Probably almost all surgical cases have their time limit, before which, with proper treatment, complete recovery can be assured, and after which, at least with our present resources, no efforts can be entirely successful. Exactly what this time limit is in each individual case we do not accurately know, but that there is such a limitation which is well worth our constant thought and study I am firmly convinced. Take for instance a case of strangulated hernia. Is there not undoubtedly a moment up to which the possibility, after relief of the strangulation, of a return of circulation in the involved gut still exists, and a moment immediately following when such complete re-establishment of the blood current becomes impossible? Or, in a case of progressive septic peritonitis, is there not a sharp limit to the time within which the removal of the primary source of the sepsis and of its local products is capable of putting an end to the disease? And does not after this limit immediately begin a period when such a condition of general sepsis is established as entirely precludes the possibility of recovery? Or in a case of carcinoma of the breast is there not a brief period during which the disease is absolutely local and so open to radical cure, and immediately after this a period when invasion of lymphatic vessels renders operative work only palliative? As further instances I would enumerate carcinomata and sarcomata in many different parts of the body, cases of bowel obstruction due to whatever cause, all wound infections, and especially suppurative diseases involving or threatening to involve the peritoneum. All of these diseases, with certain rare exceptions, when old age or complications of various kinds render surgical treatment inadmissible, are at the proper time susceptible of complete and radical cure. In other words, there actually is a time limit before which death can be averted, and after which death is, immediately or remotely, inevitable.

The question that I would raise is: Do we to-day, with all our eagerness to improve the results of our surgical work, devote nearly enough attention to the limit of time when perfect surgery is possible?

Even leaving out the question of life and death, what shall we say in regard to the extension of disease from one tissue to another, calling at a late period for a much more extensive or mutilating operation than would have been required but a very short time before?

What an enormous difference between a case of strangulated hernia operated on at a time when a complete operation can be done and the hernia radically cured, and a case operated on at a late stage, when gangrene of the gut has occurred, calling for resection of the intestine, followed by intestinal anastomosis or a permanent artificial anus! Compare two cases of appendicitis, one

operated on in the period of quiescence after the first attack, and the other operated on during the second attack, when suppurative peritonitis renders a wide-open wound necessary and a large, bulging hernia naturally follows. Besides these more marked instances, many others could be given in which the transition from simplicity to complication is less clearly defined. To-day a diseased joint may be safely treated by resection; in a week amputation will be necessary to save life. In the case that I presented to-night there was a prolonged period when simple extirpation of the tonsil would have been sufficient. When the patient came under my care the disease had extended so far on to the lower jaw that it was necessary to sacrifice the whole of the ramus. The probability of inoperable recurrence of disease in this case is much greater than it would have been had the operation been done two or three months earlier.

WHEN TO CALL A SURGEON IN APPENDICITIS.

Dr. George W. Gay, of Boston (Gaillard's Med. Jour., Aug. 1897), presents the particular conditions and circumstances, intended especially for the family physician, in which a surgeon should be summoned in consultation in appendicitis:

1.—In cases of the fulminating variety of appendicitis, in which symptoms are always grave, and generally increasing in severity from hour to hour to an alarming degree, it is scarcely possible to obtain surgical aid too early in the disease. An operation may or may not be necessary, according to the condition of the patient, but from the very nature of things an experienced surgeon is best able to decide that point. No one would think of operating upon a person while in a state of profound collapse. Profound prostration, which differs from collapse in that the clammy sweats, cold extremities, flickering pulse, and sighing respiration are lacking, may call for an immediate operation. By speedily relieving the system of the pent-up septic materials the vital powers are thus enabled to rally, and to regain their normal condition.

2.—In the greater proportion of cases of appendicitis met with in ordinary practice the symptoms are moderate in severity at first, but steadily grow worse every 12 hours or so, with perhaps occasional remissions. These cases are often very deceptive. The patient does not seem to be very sick. With an occasional opiate, or perhaps without anything of the sort, he suffers little pain, and the attendants and friends are loath to believe that a serious, if not a dangerous, process is going on in the abdomen, until the vital powers are so exhausted that the patient's chances for recovery are very materially diminished. In these cases Dr. Gay strongly urges that the surgeon be called, not later than the third day. Very likely the symptoms will be only of moderate severity at that time; but the consultant can form a much more correct and satisfactory idea of the character of the disease before its manifestations have reached the point of danger. He will also be better prepared to attack the case at the proper time.

3.—A patient has a moderate attack of appendicitis. He is to all appearances improving, when without any definite reason the symptoms are aggravated. He has a relapse, and has to make another start in his convalescence, only to experience the same chain of events sooner or later to prevent his recovery. The patient, and oftentimes the physician, is inclined to attribute these relapses to over exertion, an error in diet, catching cold, etc. While these factors may occasionally act as exciting causes, yet the essential feature to be borne in mind is a damaged appendix. Every exacerbation means an extension of the morbid process, and leaves the patient a little weaker and a little worse off than he was before. The time may come when he fails to rally, and he then becomes an invalid from chronic appendicitis. Sound judgment is therefore required to decide the proper period for inter-

ference. Each case much be managed according to its conditions and peculiarities, It is better to err on the side of safety.

4.—Finally, we have the recurring cases of appendicitis to consider, which differ from the relapsing variety in the fact that patients are apparently well between the attacks.

TYPES OF FRACTURES AND DISLOCATIONS OF BONES LIABLE TO BE OVERLOOKED.

In dwelling upon the importance of accurate diagnosis in the above class of cases, Dr. T. H. Manley (Virg. Med. Semi-Monthly, June 25) offers the following conclusions:

1.—Fractures, difficult or impossible of demonstration, those fissured vertically, or those non-displaced through the cancellous tissues of the articular ends of long bones, occur, without doubt, more frequently than is commonly supposed.

2.—In injuries of the limbs attended with unusual or doubtful fracture, nothing can justify the application of violence to demonstrate its presence, as in no event are the principles of therapy altered in them.

3.—In this class of cases the patient should be given the benefit of the doubt until, at least, time elucidates it—caution only being observed that the circulation is unhampered and full muscular relaxation is effected.

4.—We should never fail, when possible, to utilize the Roentgen rays as a diagnostic aid, though their use in this direction is obviously limited.

5.—Exploratory incision should be ruled out, unless the fracture is of such description as to demand or justify a simultaneous osteo-plastic operation.

EXPERIMENTAL RESEARCH ON THE PATHOGENY OF OSTEOMYELITIS.

BY M. BINDA, OF MILAN.

The etiology of osteomyelitis has been clearly demonstrated by several interesting clinics and experimental works of several authors, among which may be cited those of Chassignae, Borket, Gamet, Vogt, Volkman, Klebs and Lucke. We know to-day that it is an infectious lesion which may have its origin in the bacillus of tuberculosis, the staphylococcus, the streptococcus, the bacillus of typhoid, the pneumococcus or coli-bacillus. In fact, all the staphylococci, which cause acute inflamation in any tissue, play a dominant role in what is known as infectious osteomyelitis.

Experimental research has indisputably demonstrated that in young animals the various types of osseous infection may be produced at will. Suppuration may involve the periosteum, the osseous elements or underlying substance.

How these suppurative foyers originally form is not well understood; it is believed, however, that the primary changes are dependent on embolism followed by a retrograde thrombosis; here the purulent mass being the result of the action of pathogenic bacteria.

In our experiments we have employed the young rabbit. Into the auricular-vein of each we injected an emulsion of a very virulent culture of stphylococcus. The localized infective process was not influenced by artificial means, as contusions or friction, but was left to physiologic and pathologic influences. Our researches have consisted in observing step by step the development of the process. The animal so infected we have killed at different intervals. In some, injections produced almost immediate death.

The bones were removed, decalcified, etc. In our first series we began by an analysis of the blood of the heart. This was opened with a cautery blade. We have made our inoculations in different parts of the marrow in order to make certain of the presence or absence of micro-organisms. After these inoculations we have always carefuily examined all the organs and have studied with special care the epiphyseal ends of the femur, which we know clinically are the most liable to osteomyelitis. Of these we have made very thin sections which we exposed to the action of a solution of—con, acid picri, 1000 acid nitric .50.

After six days decalcipiation was complete, when sections were first thoroughly washed and then placed in alcohol with a little carbonate of soda added to neutralize the acid. Later microscopic sections were made and stained. The author proceeds to give in detail the results of several experiments in detail. In no instance was there positive evidence of bacterial invasion in the cancellous tissues when the animal was killed in less than 24 hours after inoculation. In one, killed at end of 24 hours, the staphylococci were found in the blood and bone marrow, besides retrograde thromboses. In another, killed at same period, there was bacteria thromboses of the periosteal vessels at the end of the bones and in the coverings of the epypharyngeal cartilages.

Microscopically it might be noted in these cases that there was a marked turges cense of both heads of the femur, with subperiostial extravasation. Synovitis had already developed, and in the effused fluid staphylococci were found in abundance.

Microscopically in the same specimens cellular diffusion was obvious. In some instances the embry onic infiltrate packed the lacunar spaces in the cancellated tissue. Infiltration augmented as the epiphyses were approached. Quite invari bly here we found large groups of staphylococci.

In many, wherein the bone marrow, and overlaying parts showed free infection, yet the examination of the blood was negative.

In conclusion the author points out how emphatically these experiments demonstrate the important part the circulation plays in osteomyelitic processes. Under various circumstances this may be possible, as soon as one hour after injection, although the isolation of the germ is not yet demonstrable. It has been observed that the vascular changes always primarily commence in the cancel lous, periosteal and medullary tissues before seizing on the cartilage or perichondral parts, which are very resistant to phlogistic changes.

It will be remembered that the epiphyses have expansions, or ampullae vascular dilatations. These abruptly end where the cartilaginous isthmus begins at a point beyond which microbes penetrate with difficulty, if at all.

In those instances in which very large sqvestra are thrown off, the initial lesson is thrombosis of the major vessels. Here the microbes first invade the endothelia, when their presence induces an infiltration of the intinmua, vascular stasis congulation and asphyxia of the osseous territories flushed by the disabled vessel.

(Archives de Medicine Experimentate et D'Anatomie Pathologicale, September, '97.)

Note by the translator.

The above valuable contribution of M. Binda throws some light on the pathology of a very interesting and comparatively common lesion; one of great importance to the surgeon; and suggests a novel line of therapy, at least in the early stages, viz: That osteomyelitis be produced through sanguinous changes by way of the circulation. why not follow it by an attenuated virus subcutaneously administered?

The claim that staphylococcus aureus is responsible for the greater number of cases of osteomyelitis we cannot entertain as conclusive based on laboratory experiments alone, for the reason that the rabbit is intensely susceptible to infection of a purulent microbe.

But in the human being free suppuration of any discription is rarely found anywhere without the presence of this microbe, mostly in the plasma which circulates in passages too fine for blood corpuscles; and yet osteomyelitis is no necessary sequelae of this type of infection; as in most cases of osteomyelitis we have a history of local violence. Under these circumstances how do we account for microbic action suppuration, necrosis, etc., when there has been no surface abrasion? Evidently not through the general circulation. The probability is that this ubiquitious microbe is quite inocuous in man, unless we have the indispensable locus-minoris-resistenciale, then it comes in as a consequence and not as a cause. T. H. M.

Current Medical Literature.

A NOTE ON TWO NEW CREOSOTE COMPOUNDS: CREOSOTE VALERIANATE AND GUAIACOL VALERIANATE.

BY FRANK WOODBURY, PHILADELPHIA, PA.

In these days of new remedies of ephemeral usefulness and evanescent reputation, it is refreshing to take up for brief consideration a drug with an established record of more than half a century. We recall the fact that while experimenting with tar from beechwood, Reichenbach, in 1832, first obtained a fluid substance, which, on account of its possessing pre-eminently the power of preventing putrefaction in organic substances, he termed "creosote" or "flesh preserver." That expert chemist also fully recognized the fact that the new chemical agent was not a simple, but a very complex, substance, being composed principally of hydrocarbons of the aromatic group. It also contains a variable quantity of water. According to a recent authority, Marasse, it contains phenol, cresol, phlorol, guaiacol and creosol; also methylcroessol, and the methylic ethers of guaiacol, phlorol, etc. By fractional distillation, Hofmann separated the dimethylic ethers of pyrogallol, of methyl pyrogallol, and of propyl-pyrogallol from that portion of the creosote which passes over at a temperature above 220 degrees. Hofmann discovered a new body, which he named cerulignol, which possesses powerful toxic properties, and which should be carefully removed from creosote that is to be used for medicinal purposes. Its presence may be detected by treating an alcoholic solution of creosote by a test solution of barium hydrate. If cerulignol is present the solution will turn blue or show a bluish tinge. Benzine may be substituted for alcohol, with the same result. The United States Pharmacopeia has adopted this as one of the tests indicating the suitableness of a specimen of creosote for medicinal use.

I have referred to the early studies of creosote by its discoverer, Reichenbach, in order to bring into marked prominence the fact that it was first obtained from tar from the beechwood, and the early experiments made upon this agent, not only chemically, but also physiologically and clinically, were made with this form of creosote, which is still considered the best for medical use, and which is now used almost exclusively in therapeutics. An analogous substance obtained from coal tar is simply a mixture of phenol and cresylol of variable composition, or, in other words, an impure carbolic acid. They differ chemically principally in the following characters: Creosote from wood tar, added to an equal quantity of glycerin, is precipitated upon the addition of water; added to collodion, it does not coagulate it; and when treated with nitric acid and heat, by Clark's method, yields oxalic acid. The so-called creosote from coal tar is not precipitated by water from its gelatin solution; it does coagulate collodion, and yields picric acid when treated with nitric acid. There are corresponding and equally well-marked differences between the two compounds in their physiological action, the most important being the comparative innocuousness of pure wood tar creosote, which can be taken in large doses, not only without toxic symptoms, but with decided therapeutic results.

It has unfortunately occurred that for many years the coal-tar compound was frequently dispensed for creosote, and the latter consequently fell into disrepute for a time on account of the accidents and untoward results from its use. Creosote, according to Dr. H. C. Wood, also, is liable to be adulterated with eupion.

In the last edition of the United States Dispensatory, by Professors Wood, Remington and Sadtler, the statement is made that "commercial creosote almost always contains carbolic and cresylic acids from coal tar; and indeed, much of what is sold for creosote is nothing more than impure carbolic acid." I cannot, however, agree with these distinguished authorities in the statement contained in the sentence immediately following the above, which says, referring to carbolic acid, that "this acid strongly resembles creosote, and this resemblance probably extends also to their therapeutical effects, so that the substitution is less to be regretted than might otherwise be the case." This I regard as a most misleading and dangerous teaching. A patient may take as much as six hundred drops of creosote, as in Dr. Freudenthal's case (Medical Record, 1892), and recover practically without the use of any antidote; but would this case have resulted so favorably had the same quantity of carbolic acid been swallowed instead of creosote?

The principal constituent of creosote is guaiacol, the methyl ether of pyrocatechin, which is said to be present in the proportion of sixty to eighty per cent. in the best specimens. Guaiacol, in a pure state, is crystalline, but as commonly met with is an oily-looking fluid with a peculiar pungent, smoky odor. It can be obtained, however, in an absolutely pure condition from a commercial sample, by cooling with a mixture of ice and salt, and then separating the crystals which have formed, as stated by S. Winghoffer (Pharmaceutische Zeitung, Berlin, 1894).

On account of the liability to adulteration in commercial guaiacol and its variable composition, various compounds have been introduced into the practice of medicine as substitutes for creosote and guaiacol. Among the more prominent of these are the carbonate of guaiacol; guaiacol salol; benzoyl guaiacol, or benzosol; cinnamyl guaiacol, or stracol; guaiacol phosphite; guaiacol biniodide; and most recently the guaiacol valerianate, or geosot. These various compounds are administered with the view of their undergoing decomposition in the intestinal tract and yielding guaiacol at the point where it can be most readily absorbed into the bloodvessels. In this way the administration of chemically pure guaiacol is accomplished more surely than by any other method. Moreover, these compounds, generally speaking, are more agreeable to the palate than the guaiacol itself.

Chemistry.—The following is Dr. Wendt's process for the manufacture of the valerianic-acid esters of creosote (eosot) and guaiacol (geosot).

The description of the process of manufacture and of the physical and chemical properties of these esters can properly be confined for the purpose in question to the esters of the two most important constituents of the wood-tar creosote, the guaiacol and creosol.

To fifteen parts of creosol and twenty parts of valerianic acid seven parts of oxychloride of phosphorus are to be added. The mixture is then gently heated and boiled for the beginning in the water bath, and later on the open flame, until the development of hydrochloric acid has ceased. Afterward the mixture is washed with a three per cent. solution of caustic soda, well shaken with benzol, separated from the solvent medium and from water.

The ester represents an indifferent, slightly yellow, oily liquid, and boils in the vacuum (two to three millimetres pressure) between 117 and 121 degrees C. The creosol used in the process is distilled in vacuum (two to three millimetres pressure) for the greater part between 81 and 85 degrees C.

The ester is easily soluble in alcohol, ether and benzole, and has an aromatic odor.

The process for the manufacture of guaiacol valerianate (geosot) is slightly different.

Five parts of guaiacol are mixed with seven parts and a half of chloride of valeryl and gently heated until boiling occurs, at first over the water bath and later on the open flame, and until the development of

hydrochloric acid ceases. Then the mixture is washed with a cold three per cent. solution of caustic soda, diluted with benzol, separated from the solvent medium and exsiccated.

The physical and chemical properties of this ester are practically the same as those of the analogous creosol ester. The boiling point of both of them under the regular atmospheric pressure is stated to be about 260 degrees C. Other compounds of the esters resulting from the process of esterification of commercial creosote with valerianic acid begin to distil at a temperature of about 240 degrees C.

Physiological Action.—The valerianic acid esters of the wood-tar creosote, especially of the most important constituents—that is, of guaiacol and creosol—are distinguished by their special property of being easily absorbed by the human system, and particularly by the fact that the heart and nerve tonic property of the valerianic acid is entirely preserved in these preparations.

Locally, guaiacol acts like solutions of carbolic acid to produce limited surface anesthesia. Dr. Newcomb, of New York, at the recent meeting of the American Laryngological Association, recommended a five per cent. solution in olive oil as a substitute for cocaine for nasal operations. I have myself used the guaiacol valerianate for this purpose, both in full strength and diluted, and found it to possess, after a slight sensation of heat, decided anesthetic effects, which are slower in appearing than after the application of cocaine, and which are not followed by secondary hyperemia. The antiseptic power of guaiacol is also of great value in throat and nose operations. We know of the frequency of the presence of virulent bacilli in the nasal chambers of apparently healthy individuals, and the routine use of detergent remedies, followed by a decided antiseptic, such as guaiacol in oily solution, or the more agreeable valerianate of guaiacol, is now almost necessary in the conduct of our hospital and private work. I should have stated that the valerianate has a strong odor of valerian, which almost masks the guaiacol, and produces a combination the odor of which is suggestive of walnuts. Guaiacol valerianate is a local anesthetic to the skin when applied in full strength.

The temperature-reducing power of guaiacol, discovered by Sciolla, in 1894, is one of the most remarkable observations in the whole realm of pharmacology. This is not likely to occur in persons of good health with a normal temperature, but it is very marked in conditions of pyrexia. Caporali has found that the external applications of guaiacol not only relieve pain and reduce abnormal temperature, but also increase the utilization of albuminoids by the organism and the absorption of fat and diminish oxidation.

Administered internally, guaiacol and creosote both exert a powerful antiseptic action upon the contents of the alimentary canal. The temperature reduction appears to be due to a special action of guaiacol upon the peripheral end organs of the nerves in the skin and mucous membranes. Upon the heart and bloodvessels there are no obvious effects from moderate doses of creosote or guaiacol. In larger doses it acts as a cardiac depressant, producing diaphoresis from relaxation of the bloodvessels, also giddiness and a tendency to fainting or collapse, convulsions, or coma, but these disagreeable effects are more likely to occur from commercial creosote or guaiacol than from a chemically pure article. In escaping from the blood by the bronchial mucous membrane and urinary organs, guaiacol exerts a local stimulant and antiseptic action.

From this very brief review of the physiological action of guaiacol I turn to the therapeutic use.

As my time is limited, I will confine my remarks to the guaiacol valerianate and creosote valerianate (for brevity, denominated eosot and geosot) which were recently introduced by Dr. Gustav Wendt, of Berlin, and which I have used, to some extent, for the past three months in private and dispensary practice. For the same reason I will omit notes of cases, and simply summarize some of the results of the use of

these agents. Both of them are liquid and have characteristic odors, the guaiacol valerianate being more agreeable to patients than the creosote compound.

In painful affections of the skin, attended by hyperemia, such as inflamed acne, or abscess in the external auditory canal, pin boils, etc., applications of pure guaiacol valerianate (geosot) relieved pain and checked further pus formation. In chilblains this agent promptly relieved the annoying symptoms. Small compresses wet with guaiacol and applied over the painful spots of Vallein afford almost immediate relief in neuralgia.

In an acute erythema of the face, apparently erysipelatous, but possibly the result of rhus poisoning, a single application of this agent for ten minutes, followed by applications of zinc ointment containing creosote (one drachm to the ounce), afforded immediate relief and prompt disappearance of the inflammation. In the cases of children, however, or where larger areas are involved, the antithermic effect should be borne in mind, and not more than twenty-five to thirty drops applied at one time. I have already alluded to the use of guaiacol valerianate in the treatment of affections of the nose. In acute rhinitis it should be diluted with three or more parts of oil of sweet almonds or liquid albolene, and in this form it acts as a protective as well as an analgetic and antiseptic application. In chronic rhinitis, especially the purulent form, as well as in some varieties of atrophic rhinitis, it is used in full strength with advantage, as many of these cases are kept up by the presence of virulent micro-organisms, the action of which is inhibited by the guaiacol. In ulcerated conditions, even of supposed tuberculous origin, a few applications of pure guaiacol or creosote valerianate materially promote the healing process, at the same time relieving pain. This observation also applies to the larynx. I have not yet employed it in lupus, but it might be of service here for its local anesthetic effects, prior to scraping and the application of lactic acid and the subsequent use of a twenty per cent. guaiacol spray, as recommended by Dr. P. Watson Williams. In tuberculosis of the air passages, external applications of pure guaiacol have been recommended by Dr. J. Solis-Cohen and others, and for this purpose the valerianate (geosot) would have especial advantage. Internally, guaiacol valerianate is given either in milk or dilute alcohol, or, better, in the form of capsules. It checks bronchorrhea and reduces the number of tubercle bacilli in the sputum, at the same time that it tends to prevent reinfection from the intestinal tract. It is well borne in moderate doses, ten to thirty minims daily, or one to three capsules, each containing two grains, or three minims and a third, three times a day.

In the treatment of gastric catarrh, chronic gastritis, with gastrectasia, and other conditions associated with or producing fermentation of the contents of the stomach, I have used creosote valerianate (eosot) in preference to the guaiacol valerianate (geosot), as I believe it to exert stronger antiseptic action. It also overcomes nausea, and in connection with lavage, favors return to a healthy condition of the mucous membrane and the re-establishment of appetite and normal digestion.

Fifty years ago Dr. Fahnestock used pure creosote as an application to erysipelas with remarkable success. I have already referred to the use of guaiacol valerianate as a local application for erythema, and would suggest its use as a topical agent in erysipelas and also in small-pox.

In cases of pulmonary phthisis this remedy has been well borne, but I have had it too brief a time under observation to report decided results. Very favorable results, however, have been observed by Dr. Rieck, of Bassum, Germany, who reports increase of appetite and power of digestion, and of physical strength under its use. In cases of the initial stage of tuberculosis of the lungs this improvement was quite marked, with a decided diminution of the cough; the expectoration not only became more free, but it also decreased steadily in quantity. The night-sweats disappeared.

This report was based upon the study of twenty-three cases (sixteen of catarrh of the apices and seven of developed tuberculosis) which were markedly benefited.

I have found the guaiacol valerianate (geosot) of decided value in the treatment of the so-called catarrhal state which is sometimes considered as the pre-tuberculous stage of phthisis pulmonalis. It seems especially suited, when properly diluted with some bland oil, for intratracheal injection in cases of advanced phthisis with or without ulceration in the larynx or cavity in the lung.

Inhalation of creosote in combination with oil of peppermint is alleged by Dr. Carasso to cause a disappearance of the tubercle bacilli from the sputum, and he reports good results, clincally, after nearly ten years' experience with it. Certainly this form of aerial medication is worthy of extended trial, and guaiacol valerianate would be preferable to creosote for this purpose.

I am of the opinion that in guaiacol we have the best remedy known at present to counteract the pernicious activity of the tubercle bacillus, and I may repeat the words of Dr. Jacobi: "No one treatment of all forms of tuberculosis ever satisfied me to the same degree as has that of guaiacol." When introduced into the stomach the guaiacol valerianate is decomposed and the effects of pure guaiacol, with the sedative action of valerianic acid, are obtained simultaneously, which may be expected to have a favorable effect upon the nervous manifestations of the disease, reducing cough and restlessness. In pneumonia, Malderesco used applications of guaiacol to the thorax, posteriorly, over the affected area of the lung, with reduction of temperature and a diminished mortality.

I have thought that these few notes on a recent form of an old remedy might be of interest to the members of the section, and I beg to present, for their inspection, samples of the guaiacol valerianate (geosot) and creosote valerianate (eosot), the valerianic-acid esters of guaiacol and of creosote respectively. For further and more detailed information I may refer those interested to reports from the medical clinic of the Royal Charity Hospital, of Berlin, by Dr. Grawitz, and of Dr. Rieck, already referred to, which have appeared in the Deutsche Medizinal-Zeitung and the Therapeutische Monatshefte for 1896.

The best method for their administration is in coated Gelatine Capsules, which are entirely free from taste and smell, and are, therefore, highly recommended by the first clinical investigators of these new remedies in all cases, where no special stress is laid upon the cheapest way of medication. These capsules are of the only size of 0.2 gm., equal to about 3 min.

In the liquid form it is advisable, first to dissolve one part of the Valerianates in from 2 to 4 parts of 95 per cent. alcohol and to give this solution in sufficient milk to cover the taste and make the remedy palatable.

The following formula may be taken as an example for the alcoholic solution:

R. Eosot or Geosot, 20 ccm.
Alcohol, 95 per cent, 80 ccm.
Ol menth. pip., 0.3 ccm.

M. (Each tablespoonful contains about 12 min. of Eosot or Geosot.)

Mix dr. 1 to dr. 3 with plenty of milk and give this dose in three equal parts pro die.

The Average Dose of Eosot and Geosot is:

In the beginning of the treatment 0.2 gm. (3 1-2 min.), later on 0.4 gm. (6 1-2 min.) to 0.6 (10 min.) three times a day.

If given in capsules of 0.2 gm. contents, begin with one capsule and increase the dose to 2 and 3 capsules three times a day.

—New York Medical Journal.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

CONSUMPTION.

Mary Flaherty; Irish; age 34; first seen October 4, 1897: Case of tubercular phthisis, by microscopical and physical examination. Already of two years' progress under the various treatments. Previous weight 120 1-2 pounds; present, 94 pounds. The onset had been insidious, began with dyspepsia, irritable heart, light dry hacking cough, which was referred to the stomach; the diagnosis of her physician being anaemia with atonic dyspepsia. Two months later the cough had increased in severity, with scanty, glairy expectoration, loss of weight, impaired muscular strength, pallor, and one rather severe hemorrhage; also sharp pain below the clavicles. Such had been the condition of the patient up to the time of admission at Sound View; when my careful examination revealed softening in progress, cough in severity, with free expectoration, blood-streaked, and tubercle bacilli visible under the microscope. There was dyspnea on increased exertion, morning chills and evening fever, night sweats, diarrhoea, much emaciation and weakness. Yet the patient, as is usual under these conditions, was very hopeful. There was considerable edema of feet, indicating disturbed circulation. Inspection showed depressions in supra-clavicular and infra-clavicular regions; palpation, vocal fremitus much increased; percussion, dullness over right apex and upper lobe, with circumscribed spots of amphoric sound; auscultation, vesiculo-bronchial breathing, associated with subcrepitant and moist rales. The prognosis, it is unnecessary to add, was decidedly unfavorable.

The patient was put to bed after having been thoroughly bathed, and attention was turned to her secretions. The stomach was gently washed out with Thiersch solution No. 2. Was put on a prescription of one drop pure beechwood creosote, two drops tincture iodine and six drops oil of cinnamon, in iced water, every three hours; also one-eighth grain biniodide of mercury rubbed up with bicarbonate of soda, every three hours. The stomach being in a sensitive and delicate condition, I commenced bovinine in small doses of thirty drops in iced grape juice, hourly, for the first three days; then increasing it to a teaspoonful every two hours and, after ten days more, to a tablespoonful every three hours. By the 28th the patient's stomach was so much strengthened that she was able to retain without inconvenience a wineglassful every four hours. The biniodide of mercury and bicarbonate of soda was then stopped, but the other prescription was continued, and on November 10 the creosote was increased to three drops; on the 26th to five minims, now in capsules; on December 16 diminished to three minims.

At the latter date the patient was giving every evidence of restored health; the cough was reduced to a mere occasional clearing of the throat; scarcely any expectoration, and that only on rising in the morning. The microscope revealed not the slightest trace of tubercle bacilli in sputum. The morning chilliness, evening fever and night sweats were no more. Her appetite, digestion and sleep were normal. Her weight was 119 3-4 pounds. There remained some dullness over the right apex, but auscultation showed complete encystment of the tubercle. She was discharged December 27, with every indication of cure confirmed. Will report for examination and advice twice a week; so that there will be no difficulty in watching and reporting the sequel of the case.

CATARRHAL PNEUMONIA.

John Hayes, Bridgeport, Conn.; American; age 32; first seen November 3, 1897. A well-defined case of catarrhal pneumonia. Was put on bovinine diet exclusively, thirty drops in old port wine, hourly, for five days; then a teaspoonful every two hours to the 23d; then a tablespoonful every three hours. After the 12th he was allowed in addition to the bovinine a light general diet. Medication consisted in three drops tinct. aconite every three hours; 1-100th grain of glonoine, and 1-30th grain nitrate of strychnine, every four hours, and a tablespoonful of bronchine every three hours.

Although the case had been well

defined in first stage, and just verging into the stage of red hepatization, it was, nevertheless, cut short by this course of treatment, and the patient was put on the road to recovery, and under continuance of the same attained it and was discharged cured December 14. His strength had been better sustained than any other case in my experience, and there was less than usual of dyspnea and depression.

NOTES ON THE TREATMENT OF SCIATICA AND RHEUMATISM.

BY ALLISON MAXWELL, M. D.

Professor of Principles and Practice of Medicine, Central College of Physicians and Surgeons, of Indiana.

Case 1.—Mr. M. A., age 49, has been suffering rather severely with sciatica. He was given salophen 15 grains four times a day. The leg and hip were also treated three times with static electricity. After three days the pain and soreness had disappeared and the patient walked without limping, and up to this time, three weeks after, he has been entirely well.

Case 2.—Miss M. M., aet 52, has been suffering with acute rheumatism of the ankles and knees for four days. She has previously had subacute attacks. She could not take any of the salicylates because of the nausea which they produced. I gave her salophen, 15 grains four times a day; within a few days she was able to be out of bed, and in ten days left the city to visit friends in a distant city. She was delighted to have found a remedy for rheumatism that did not nauseate her.

GUDE'S PEPTO-MANGAN.

By J. R. CLAUSEN, A. M., M. D.

While opinions may differ as to its significance, it is a well-known fact that manganese is always found in the hemoglobin of the red blood corpuscle, and close observers attribute to it an oscygenating function that quantitatively is more active than iron. Certain it is that it gives off oxygen more readily than iron; hence its introduction into the body must increase assimilation.

But while the profession have theoretically long recognized the value of manganese in anemia, it has not been extensively used on account of the difficulty attending its absorption. The various combinations of iron and manganese heretofore introduced and used have almost invariably produced digestive disturbances after a short time. When Gude's pepto-mangan was first brought to my attention as a solution of manganese and iron that could be readily assimilated by the most delicate stomach I must admit that I was skeptical, since other combinations of iron and manganese which I had employed had yielded far from satisfactory results. It required but a few weeks of experiment, however, to convince me that all the claims set forth for Dr. Gude's preparation were well grounded.

My first case was that of a patient well advanced in years, whose system was thoroughly debilitated and whose condition was decidedly anemic. I tried the remedies usually prescribed in such cases, but without satisfactory results, and finally decided to try pepto-mangan alone. In the beginning I tried small doses, knowing from experience that she had an extremely delicate stomach. Somewhat to my surprise the symptoms of digestive disturbance, which I fully expected, did not appear, and larger doses were well borne by the digestive organs. Inside of two weeks she showed marked improvement; her appetite returned, her bowels resumed their normal functions and there was a gradual amelioration of all the distressing symptoms that before had made her look and feel miserable. In less than two months she pronounced herself "as well as she ever was," and to-day laughingly declares herself "ten years younger" than before she placed herself under treatment. My next case was that of a youth aged 15 who had the most pronounced anemia following on a severe attack of scarlet fever with other complications. From the very first pepto-mangan was perfectly assimilated, and in a little over two

months he was able to resume his studies with new life and vigor.

Since then I have used pepto-mangan in many cases of anemia and chlorosis, and always with the same marked sucess.

I earnestly commend it to the profession, and especially to such of my professional brethren who have used other combinations of iron and manganese with disappointing results.

DRUGS FROM PLANTS.

What are your favorite drugs derived from plants? With most physicians (1) aconite takes the lead, followed by (2) digitalis, (3) nox vomica, (4) opium, (5) belladonna, (6) cinchona, (7) veratrum viride, (8) hyoscyamus, (9) gelseminum, (10) cimicifuga, (11) colchicum, (12) podophyllum, (13) hydrastis, (14) physostigma, (15) phytolacca, (16) pilocarpus. Many others are used, but probably more practice is done with these few than with all other plant drugs together. You have been using them in some of the crude forms—solid extracts, fluid extracts or tinctures. These are inconvenient of administration and slow in action. They can all be more conveniently and accurately administered, and in a form in which their effects will be more prompt, certain and safe, by employing their active principles. For the above-named drugs the active principles would be respectively, (1) aconitine, (2) digitalin, (3) (a) strychnine, (b) brucine; (4) (a) morphine, (b) codeine, (c) apomorphine; (5) atropine, (6) quinine, (7) veratrine, (8) hyoscyamine, (9) gelsemine, (10) macrotin, (11) colchicine, (12) podophyllin, (13) hydrastin, (14) physostigmine, (15) phytolaccin, (16) pilocarpine. There is no elaborate system needed. Just select from the list the drugs you have been accustomed to using, and commence giving them for the usual indications. Give in small doses, and repeat frequently until the desired effect has been produced. For further information of a practical character on this subject see the adv. of a fine pocket case of forty-eight remedies (a complete pocket pharmacy) by the Philadelphia Granule Company, 1127 Walnut street, Philadelphia, in this issue. Many physicians attribute their greatly increased success in practice to their adoption of these neat, attractive, prompt and powerful remedies.

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Among the mineral springs resorts of the United States which will not only serve as a model for other resorts in this country, but is equal in every respect to such celebrated European resorts as Carlsbad and Aix la Chapelle, is the Virginia Hot Springs, located in the Hot Springs Valley, at an elevation of 2500 feet, on the Chesapeake & Ohio Railway. All the natural conditions unite here to form an ideal retreat for invalids. The surrounding mountains afford protection from violent atmospheric changes and insure a delightful temperature, free from extremes in summer and safe in winter. The scenery is bold and picturesque, and outdoor exercise is a feature of the place. The magnificent bathing establishment is provided with every modern appointment, and every bath is given with natural hot water.

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Full information may be obtained by addressing Mr. H. W. Fuller, G. P. A., C. & O. Ry., Washington, D. C., or Mr. Fred Sterry, manager, Hot Springs, Bath County, Va.

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Original

SALPINGITIS.*

BY FRANCIS CARROLL, M. D., BOSTON.

Salpingitis has been presented with thoroughness and vigor by eminent gynecologists, their knowledge diffused and their principles intelligently applied. So that in treatment of the subject under discussion the paper has endeavored to cull the most important and salient features, purposing to avoid the identity of structure of the fallopian tubes and uterus and confine itself to presentation of essentials.

Case 1.—Patient age 37, brunette, married, mother of two children, no miscarriages, comfortably situated in life, habits beyond reproach, woman pallid and emaciated, headaches periodic and violent, constipation an associate, spirits depressed. There is a harmony in her discord, for dark and melancholy forebodings cross her path the whole gamut of a "Hysterical Symposium" is in order, followed by nausea, vomiting and purging; a copious flow of urine, dyspnea and precordial distress. Heart was believed to be affected. Stomach was believed to be dyspeptic. Then from exposure to inclemency of the weather came menorrhagia, metritis and intense pain, more or less continuous in left iliac fossa, with mucous discharges during intervals of flow, pain extending down anterior portion of left thigh and leg. Examination revealed metritis, great tenderness over uterine fundus, tenderness of left tube, sensitiveness of left ovary and acute catarrhal salpingitis.

Case 2.—Operated on by Dr. Albert Tuttle. Following history obtained December 30, 1897: Patient aged 38, married, 17 years ago had miscarriage and 13 years ago had pain in left side of abdomen, operation performed, but could not remove tumor; had to wear tube in wound to drain off pus. Six months after operation was operated upon again for accumulation of pus. Eighteen months later another operation was performed for ventral hernia. Since then has felt well. Menstruates every two weeks since last operation. Flows for two or three days, no pain after first day. One period the flow will be light in color, next time dark and clotted. Does

*Read before the Gynecological Society of Boston, Feb. 10, '98.

not seem to lose strength by menstruating so often. Has been well till about two weeks ago, when she was taken with severe pains on both sides—ovarian—more marked on right, and pains in back. Bowels very constipated, very sore; seemed impossible to have them move. Pain same as in former years and intense. Patient lost a great deal of flesh. Urinates often. Profuse perspiration about 3 A. M. every day. Examination of urine: No albumen, sp. gr. 1012 deg. Operation abdominal, performed by Dr. A. Tuttle January 1, 1898. Operation very difficult on account of former replaced hernia having become encapsulated and adherent to omentum and peritoneum, offering a serious obstacle to advance of surgeon. The same being dissected away and pushed aside a pus tube and cystic ovary were removed. Operation a success. Complete recovery. Patient discharged well.

Salpingitis is inflammation of fallopian tubes. Acute catarrhal, acute purulent and seated in mucous membrane or chronic interstitial, located in muscular coat. Cystic, pyo, hydro or hemato in character.

As a classification salpingitis may be infectious or purulent, non-infectious or catarrhal. One or both tubes may be diseased.

Catarrhal form is limited to mucous membrane, the tube swollen from thickness varying from a pencil to that of thumb. The folds of mucous membrane are edematous and infiltrated. Epithelial cells are swollen. Muscular coat participates but very little in inflammatory process. Secretion is mucus and epithelial cells. Mild cases recover or pass into chronic form of catarrh.

Purulent salpingitis is the more destructive. The tubes distorted, adherent to neighboring organs, or divided and shrunken or enlarged, divided into parts and crumpled. Epithelia degenerated into pus. Mucous membrane first attacked and having become infiltrated the muscular coat is invaded. The abdominal ostium usually becomes agglutinated, distorted, adherent and closed. In the beginning the uterine ostium may remain potent. A profluent salpingitis, with discharge of contents into uterus, follows. When resolution does not occur general peritonitis by infection or pus walled off from peritoneum by rapidly formed adhesions, or tubal abscess with distention of tube or neighborthe parts, infiltrated and adherent, are the results, with the addition of fatality or life-long invalidism to the patient.

Interstitial salpingitis affects the muscular coat, the result of catarrhal or purulent; the wall is involved, tube enlarged and tortuous from the formation of connective tissue, or atrophied with degenerated muscle tissue and, connective tissue taking its place. The different forms of salpingitis are very often accompanied by pelvis peritonitis. The ovary becomes implicated, small adhesions are formed, then cysts, or an abscess with rupture into peritoneal cavity or surrounding organs, or an exudate into Douglas' pouch, becoming a thickened, matted mass, adherent to intestines, omentum, bladder, uterus.

Tubercular salpingitis is the most common form of tubercular disease, of genital, primary or secondary, origin, produced by infection of peritoneum or by coitus from men with genito-urinary phthisis. Military or chronic diffuse. Diagnosis difficult or impossible.

Salpingitis is a common disease. As a rule secondary, limited to period of uterine activity, chief causes being exanthematous diseases, displacements of uterus, uterine myoma, uterine carcinoma, ovarian diseases, tuberculosis, cold, frequent coition, puerperal laceration, incomplete abortions, gonorrhea by extension from vagina to fallopian tubes and peritoneum, intra-uterine injections.

Salpingitis has no special symptom. A pus tube may show no distinctive sign, except recurrent fever. A symptom that excites suspicion is a mucous or purulent flow from genitals, though this may be due to endometritis.

Disease usually bilateral. Pain may not be or may be most excruciating in iliac fossae. Leucorrhea, menorrhagia, metorrhagia, amenor-

rhea may be present. On examination tubes tender, thickened, distorted, ovary often enlarged or a globular mass of matted tissue. Uterus, ovary, intestines, omentum adherent or pushed out of position. When salpingitis leads to formation of cyst, whether pyo, hydro or hemato, tumor is felt bimanually, and it is difficult to distinguish from tubal pregnancy. Differential diagnosis between ovarian cyst or cysts of broad ligament is very obscure.

Hydro salpingitis causes less constitutional disturbance and is less tender than cystic salpingitis and is often found with uterine fibroids. Hemato is exceedingly rare, due to tubal pregnancy or traumatism. The various forms of salpingitis are but different manifestations of the same conditions at different stages of process. A septic salpingitis in ten days may produce fatal peritonitis or beginning of invalidism, may rupture into peritoneal cavity or discharge contents into bladder or rectum. Such fistulous openings rarely close permanently. And I may say here that it is the opinion among the profession that pus tubes discharge through the uterus and can be drained by dilating and curetting. To be succinct, a large number of surgeons are on record that the lumen of tube at isthmus with its large amount of muscular tissue produces complete occlusion as result of inflammatory process. Again, from the observation of a large number of removed specimens not a drop of pus could be squeezed through uterine end of tube.

Diagnosis of salpingitis is certainly difficult. Physical examination is not always entirely satisfactory, especially so in fat women. The character and situation of pain with dysmenorrhea is a feature. So, for that matter, is menorrhagia. From ovaritis the inflamed tube is distinguished by the shape.

Cellulitis forms a swelling situated lower down. Where the intestines and tube become as an enigma in Douglas' pouch the question of tenderness differentiates the two. Peritonitis is apt to form a larger exudation in iliac fossa.

A purulent salpingitis, if specific, has history as evidence. Again, the severity of the symptoms may and do lessen, indicating that inflammation has subsided, but it again lights up; fever recurrent. Periodical watery fluxes, with colicky pains, are indicative. Repeated attacks of local peritonitis are very suspicious. Rise of temperature, with chilly sensations and tenderness of tube on bimanual pressure, are in like manner suspicious. The symptoms of ovaritis cannot, however, often be distinguished from those of salpingitis. When in doubt, and case especially serious, best to anesthetize patient. Prognosis of salpingitis is a serious problem to confront. Catarrhal form amenable to treatment. Purulent, prognosis bad. It may end fatally from severity, or cause death from exhaustion or invalidism.

TREATMENT.

Acute salpingitis in early stages, expectant treatment—Absolute rest, relief of pain by hot fomentations, anodynes and counter-irritants. To the cervix and vagina a pledget saturated with solution of one part boroglyceride, one of alum and fourteen pure glycerine for three to five days or a week. Opium by mouth or rectum for pain. Close attention should be paid to health and digestion. Diet should be fluid. Bowels regulated by saline aperients or hot rectal injections. Tr. iodine painted internally or externally in beginning is of some avail. Pledgets soaked in ichthyol and glycerine, galvanism, intra-uterine applications of chloride zinc, poultices, hot water bags, rest and tonics. In mild cases iodoform gauze packed in uterus or curetting. The treatment by pelvic massage for the relief of adhesions or massage of the tube is now upon trial, but it seems obvious the contents of the tube must be pushed along and the peritoneal cavity endangered, as well as the tube itself, by such procedure. Interuterine injections must be avoided. Catherization is impossible, and aspiration not devoid of dangers, especially in septic cases. Incision from vagina and drainage tube of glass, rubber or silver introduced, and iodoform gauze is at

times very beneficial, but this treatment is not advised except in those cases where abdominal section is not allowed. When palliative treatment is of no avail, or when a hydro or pyo salpingitis is developed it is doubtful if any treatment except laparotomy or abdominal section is effective, which means removal of uterine appendages or their preservation. In abdominal operations the operations consist in freeing adhesions, replacing uterus and removing ovary or tube, or any part that has become diseased, Tait's operation, or vaginal incision, behind the cervix, the so-called Battey's operation. Hence if salpingitis is purulent surgical procedures are necessary.

Result—statistics state that in 86 per cent. menopause happens.

Mortality 2 1-2 per cent. in Tait's hands in 147 operations. Good success. Twenty to 30 per cent. die from this disease. A good, reliable table of statistics has been impossible to obtain, but the opinion, crystallized into judgment, is that the removal of uterine appendages when complicated by disease, demands radical operation. When you listen to the experience of surgeons and witness the martyrs suffering from this disease and the consequences brought by neglect of proper treatment the physician hesitates in being other than conservative, because salpingitis, in its varied moods and tenses is the "bete noir" to the gynecologist. Hence a correct, unbiased study of the patient and disease is of absolute importance. A conservative opinion produces more beneficial results than a hasty diagnosis, especially where differential diagnosis adds but to the difficulty and where the usual classification of salpingitis, although clinically useful, is oft of no avail.

Recently surgeons have recognized that pus from many tubes is very slightly septic and after thoroughly sluicing the peritoneal cavity with normal salt solution, leaving a part in the abdominal cavity, the abdomen is closed. The patient is placed in a bed with the foot raised one and one-half feet for 24 to 48 hours. The result of this treatment has been very satisfactory and promises to reduce the mortality greatly.

—675 Boylston st.

TRAUMATIC NEURASTHENIA—NEUROPSYCHIC MANIFESTATIONS SUBSEQUENT TO FRACTURES OR DISLOCATIONS*.

BY THOMAS H. MANLEY, M. D., NEW YORK.
Professor of Surgery, New York School of Clinical Medicine.

When requested by Dr. Chaffee, the chairman of the Committee of Arrangements, to open the subject under consideration for the special discussion of this session, I was somewhat embarrassed for the reason that it has long been my conviction that "traumatic neurasthenia" was nothing more than a fictitious creation intended by the late Sir Eric Erichsen as a substitute for that mythical condition, designated by the same author as "spinal concussion," something long since repudiated by quite the united opinion of surgeons the world over.

I say this advisedly, for a large number of injuries of every organ and structure have been examined and treated by me, and no such pathologic condition has followed in a single instance as would stamp "traumatic neurasthenia" as an independent entity.

Moreover, if it has had such a recognition by any of our recent well-known authors in surgical pathology, will not some of the members present indicate in what English, French or German contribution a chapter on it may be found?

But, I do not wish to be misunder-

* Read before the seventh annual meeting of the New York State Association of Railway Surgeons, held at the Academy of Medicine, in New York city, November 16, 1897.

stood in this matter, for far be it from me to deny that we have every type of constitutional disturbance, with exhaustion, depression and despondency after injuries. The asthenic symptoms are, however, by no means all neural, but muscular, vascular, and those which proceed from enfeebled action of any or all of the many organs contributary to the nutrition and energy of all vital processes.

But this aspect of the theme is a large one, and now I will briefly turn to a few neuro-psychic manifestations of fractures, dislocations, fracture-dislocations and dislocation-fractures.

GENERAL OBSERVATIONS.

In connection with the subject of certain pathologic conditions of the body resulting from the effects of the application of great physical violence, it sometimes is desirable or necessary to forecast or determine, if possible, the ulterior effects on the sensorium or the functions of the cerebro-spinal axis in these cases followed by various degrees of repair.

A brief consideration of this theme, as far as it applies to mechanical disorganizations of the framework of the body, known as fractures and dislocations of bone, is here submitted.

INFLUENCES AND CONDITIONS BEARING ON EFFECTS, RESULTS REPAIR AND SEQUELAE.

Ordinarily, it is the custom to speak of "full restoration of function" after fracture. This, however, should be interpreted in its relative sense only; for perfect repair of a fully developed osseous body or shaft never occurs after a complete fracture through it. The nearest approach to it we find in the infant, the child and youth; but as their bones are not perfectly developed, they outgrow the effects; with them a dual force is in operation after a bone injury, viz: recuperative processes conjoined with continued growth, the latter tending to efface all evidence of trauma.

With this class then it may be said, under normal conditions and appropriate treatment, practically perfect restoration and repair are secured both anatomically and physiologically.

In the adult this cannot be said. At this stage of life the matured bone possesses great resistance, requiring proportionate force to disorganize or displace it, the extent of shock to the system and simultaneous laceration of contiguous structure being considerable under many circumstances.

After the meridian of life is past and the stage of senility is approached, we may encounter complicating phases in fractures and dislocations, the sequele of which require special notice.

At this period pronounced vascular changes commence; the compact tissue of the bone shafts in its central lamelle becomes vascular, hard and brittle. The bone marrow has shared in this change, and what was formerly red is now yellow. Shrinkage and condensation of the whole bone has begun.

REGIONAL DIVISION AND ORGANIC COMPLICATIONS.

The immediate and remote effects of various fractures may, in a measure, be predicated by the region of the body or bones in which they occur; as for example, those of the skull, the spine, the ribs, sternum, pelvic bones, or those of the extremities, much depending on whether the traumatism is in near contact with an articulation or important organs. Cranial fractures per se are of no serious consequence, their gravity proceeding from damage to the brain; those of the ribs being sometimes serious from injury to the pleura or lung; spinal, sternal and pelvic fractures are often grave injuries because of their close relations with vital organs. Fractures of the upper extremity are less trying than those of the lower, as here comfortable fixation is possible with the body in motion.

The degree of pain and discomfort succeeding fractures of shafts of bones will depend not only on the quality of the fracture, whether simple, multiple, or compound, but on the extent of laceration of the nerve trunks, and whether the fracture extends through the diaphysis, or has

shattered the head of the bone and opened into an articulation.

LOCAL AND CONSTITUTIONAL CONDITIONS SUPERVENING AFTER FRACTURE, IN WHICH VARYING DEGREES OF PAIN ARE A NOTABLE FEATURE.

As a general rule, the pain succeeding a simple, or even many compound fractures, after a proper adjustment, is insignificant, and the extent of constitutional disturbances slight. But there are very many exceptions.

Some there are who never quite fully survive the shock of fractures. This is notably the case when great concussion force has been simultaneously sustained by the whole body; or when the circumstances attending the accident are such as to violently impress the emotions.

The pleurisy and the emphysema, at times following severe costal fractures, the complication of synovitis when a joint is involved, the overtension or laceration of nerves, and the necessary protracted fixation of the limb are all productive of pain and wear on the system.

Femoral fracture in heavy or old people is often a very serious affair, many sinking under the ceaseless suffering entailed by enforced recumbency of the body and the consequences.

Everything equal, the degree of constitutional disturbance and local distress will be dependent on the situation of osseous disorganization, the size of the bone, the compact arrangement and relative strength of the adjacent or connecting ligaments, tendons and muscles; besides, it goes without saying, the degree and character of complications in the other soft parts.

It is very greatly to be regretted that, so far, authors have not been able to devise a more rational and definite classification of fractures than now exists. This is most manifest in the types of fractures designated "simple and compound." Indeed such a thing can scarcely be conceived of as a simple fracture; and as a matter of fact, many of them, in our favored era of antiseptic surgery, are vastly more complicated and serious than the compound, for if protected from the dangers of infection, the latter is quite as capable of painless union as the former.

THE CONDITION OF THE PATIENT AS A FACTOR IN NEUROPSYCHIC PHENOMENA, AFTER TRAUMA.

Everyone who has given attention to this phase of the subject must concede that the degree and character of the sufferings endured after serious injuries of the extremities, in a considerable number, are largely influenced by systemic conditions, the most conspicuous of which are hysteria, rheumatism, syphilis, tuberculosis and neuralgia. In certain climates and localities not only are reparative processes retarded or even arrested, but pain is greatly intensified by malaria.

A knowledge of these facts will remind us that the patient must be treated as well as the injured limb, and such specific remedies administered as a given case may require.

ON THE MECHANIC ADJUSTMENT OF A LIMB OR REGION, AS AN ELEMENT IN AGGRAVATING OR RELIEVING PAIN.

About twelve years ago an alleged case of malpractice was tried in the Superior Court of New York, in which an action was brought against a practitioner by a young man who had sustained a fracture at the lower third of the tibia. His ground for action was not that he did not recover good use of the injured limb, or that there was any deformity, but "that in consequence of his broken leg being kept over a long period in a fracture-box, he was confined to the house too long and suffered unnecessary pain." The case was ably defended, but one of our best-known writers on fractures in America supported the position of the plaintiff, and the jury brought in a verdict for him. On appeal, a higher tribunal reversed the judgment, but it cost the doctor nearly two thousand dollars to defend himself; of course, he never was paid his fee, and through the wide notoriety given the case by the press, his reputation suffered and he had no redress.

The above case and many more similar to it, which abound in the

annals of forensic medicine, suggest the cogent question: Is a patient's suffering augmented or his comfort enhanced by any special mechanical appliance, provided this be adjusted in accordance with the orthodox tenets of surgery? To this, although it may seem paradoxical, one must certainly answer in the affirmative.

This is because of the peculiarities of different individuals, as, for example, in one it may be the most conducive to comfort to wear slack dressings; another prefers the firm bandage; some will endure a flexed limb with muscular relaxation rather than steady extension. With some, plaster of paris or starch seems to provide a more comfortable adjustment than movable splints. With some, continued fixation and protracted rest of the fragments is succeeded by excellent results; in others again, immobilization may be followed by serious impairment of function, muscular atrophy, single or multiple, anchylosis of contiguous joints. The latest fad is to get the patient on his feet at once, regardless of motion of the fragments.

A fracture is, indeed, an unknown quantity, and many, apparently of a simple description, have resulted most disastrously. There is no department of surgery of a more responsible character than the treatment of fractured bones; and hence the importance to our patient and ourselves, not only of advice and consultation with the experienced, but vigilant and studious attention in every case.

HOW CAN THE INTENSITY OR THE DURATION OF PAIN BE ESTIMATED IN A FRACTURE, A DISLOCATION OR FRACTURE DISLOCATION.

Pain is an imponderable manifestation, a perversion of normal sensation, the essential nature of which is as yet unknown. Perhaps, however, in these days of startling inventions, it may not be out of the range of human ingenuity to invent a dolor-metre. The wondrous revelations of the skiagraph would seem to foresbadow such a possibility.

Intensity of Suffering.—Pain or soreness in varying degrees is an essential factor of practically every fracture; and in any type, when of an intense or agonizing character, is quite invariably a monitor which must be heeded, for it heralds forth to us, in no unmistakable manner, that something is going wrong. It is an almost invariable danger signal of intense vascular stasis of local gangrene or somatic death of a limb. To stifle it with narcotics is to destroy all hope. When its intensity is great, every description of dressings should be removed and the limb readjusted. But we should not confound this with the moderate, tolerable pain of most severe injuries. The correct interpretation derives its greatest value in the fractures of children.

Total Absence of Pain.—It has been long conceded that the entire absence of pain in fracture implies normal repair, that everything is doing well, which as an au courant statement we may concede, although there are many exceptions. For instance, under gypsum-dressing, I have more than once seen a simple fracture become compound, with extensive ulceration, when there had been no evidence of suffering given by the patient before the discovery.

Its Significance in Medico-Legal Cases.—In civil litigation, the presence and charafter of one's suffering are always taken into consideration, and on professional opinion the Court must be guided in many cases.

It therefore behooves us to acquaint ourselves with those resources of science which will not deceive us when there is good ground for suspecting malingering. It is rare that the plaintiff will allege the presence of pain, as a source of suffering or a cause disqualifying return to his usual pursuits, until after he has been through active treatment, when he may, with ample reason, be fully justified in his complaints.

PAIN, SORENESS, DIMINUTION OR IMPEDIMENT IN FUNCTION, AFTER A FRACTURE OR DISLOCATION HAS BEEN TREATED.

Pain and weakness in a limb may remain long after it is reduced, or a fracture has been treated. Fragments which can be effectually adjusted or replaced or luxated bone

restored, seldom are a source of distress, weakness or suffering.

Defect in Function.—Certain fracture-dislocations are almost invariably followed by defect in function; as those of the patella, femoral, intra-capsular, Pott's fracture, greenstick, elbow-fracture in the adult, and a typical Colles'.

On April 3 a man of fifty years came under my care with subcoracoid-humero-scapular dislocation. The head of the bone had been out about fourteen hours. It involved the right shoulder, and by simple moderate manipulation was readily reduced. But three months later he could do practically nothing with the injured limb. Rigidity, muscular atrophy and pain on motion were most pronounced.

A condition analogous to this so commonly follows Colles' fracture that the cautious will always protect himself by warning the patient of the possible results.

In all this class of cases we will invariably discover pronounced evidence of nutritive changes, of vascular disturbances and atrophy. Organic changes involving or contiguous with the joint cannot escape detection when an examination is conducted with proper scrutiny; or when the muscle-sense and tendon reflexes are properly tested.

Anchylosis or Restricted Joint Action.—The enforced fixation of certain joints during fracture treatment or the simultaneous injury of muscle and tendon favors a stiffened state of the joint below or above the fracture. The muscles have contracted; adhesions, multiple tendo-vaginitis, with diffusive vascular and inflammatory changes, have all participated in leading to structural alterations.

Unless, however, when there be extensive organic changes, depending on central or constitutional conditions, fracture-anchylosis is generally quite completely recovered from.

A Weak, Wasted or Painful Limb.—Paralysis, paresis or hyperesthesia, with marked or atrophic interstitial changes in a limb after fracture in a sound subject, point either to a vascular or neural lesion; the latter probably supervening on the former. My own experimental and clinical observations on fracture have quite conclusively demonstrated that the nerves resist the effects of trauma much more effectually than the bloodvessels. And hence we will observe that in severe fractures the resulting intumescence and edema are evidence of vascular embarrassment, with other hemic changes, long linger after the function of the spinal nerves is restored.

THE DEGREE AND QUALITY OF DEFECT FOLLOWING FRACTURE OR DISLOCATION.

Excluding the compound variety and special fractures, as the regional, of the skull, thorax, pelvis or spine, we have various ulterior results depending chiefly on the age and health of the patient, the site, the degree of violence sustained and the treatment.

Defective Repair.—Happily, in the great preponderance of cases efficient repair is realized with restoration of function; but in a fairly considerable margin this has been defective or faulty, when we meet with 1st, delayed or non-union; 2d, deformity or shortening; 3d, anchylosis or defective joint action; 4th, a weak, wasted or painful limb.

Non-union or Mal-union.—For reasons often not well understood, certain bone shafts sometimes manifest a tendency to tardy or defective solidification, a circumstance which may involve the surgeon in serious trouble if he be not on the alert for it. For example, I am familiar with different cases in which the shafts of various bones, after having been treated for fracture, on commencing use of the limb, began to bend and bow at the point of union, a most exaggerated degree of deformity supervening, to the great dismay of the patient and friends; and such a case I was lately permitted to see, through the courtesy of a London surgeon. The patient was a boy who had had a femoral fracture two years previously. He made a good recovery, and everything went well for a year and a half, when an angular deformity appeared at the site of fracture, and he commenced to limp.

There are certain fractures which seem to have united, but in reality

have not, by an osseous bond, though a fair share of functional use may be secured. Examples of this are seen in the patella and in the femur.

In complete fracture of the femoral shaft of the adult moderate shortening generally follows without sensible detriment to the use of the limb.

Deformity, Simple or Complicated.—Deformity from slight deflection or hyperostosis, at the seat of fracture in the diaphysis of a bone shaft, is a matter of trifling consequence; but when a joint is involved, tendons displaced, ligaments torn, and the capsule opened, obvious and permanent impairment in the strength or action of the limb is almost certain to ensue. Who ever saw anything like full functional restoration in a typical Pott's or Colles' fracture?

THE QUESTION AS TO THE UTILITY OR PROPRIETY OF OPERATIVE-INTERVENTION IN FRACTURES OR DISLOCATIONS.

It is a well-known principle of law that "no fee demanded, no financial responsibility entailed;" a very fortunate provision for the hospital or dispensary surgeon who attends the destitute. But this does not apply to corporations, sanitaria or pay-patients in hospitals.

The question may arise, and has often arisen, after one has been discharged from the surgeon's care with a defective limb: which is responsible for the largest share of damage here, the injury or the treatment?

Notwithstanding all our resources of prevention to-day, the one who makes a simple fracture of the femur compound, who wires a patella, or who undertakes an arthrotomy for an irreducible humero-scapular dislocation, assumes a grave responsibility.

That many a useful limb has been forever ruined by ill-timed, injudicious or unskillful surgery every one familiar with facts must concede. In litigation cases when opportunity permits, great advantage will be taken of this contingency.

Psycho-neural Phenomena in Relation to Diagnostic Aids and Diagnosis.—When one has sustained a severe injury over the bony framework of the body, apprehensive and mental unrest are great until he can be assured of the absence or presence of a fracture, or, perchance, a dislocation. Medico-legal questions, too, may be involved; so that not infrequently accurate diagnosis may be as desirable to relieve worry and impart confidence as treatment itself. But we are often confronted by such complex conditions as to render the proof of the presence of a fracture quite impossible, especially when the fixed or deeply lodged bones are involved. This is notably the case when disorganization involves osseous structures contiguous with the articulations, those of the spine or pelvis.

In internal medicine and those lesions dependent on constitutional disturbances, diagnosis is the key to treatment; in many concealed, obscure fractures, however, it has no therapeutic relevancy whatever; although from the psychic and forensic aspect it is otherwise.

It is true that by the free, aseptic incision we may penetrate to any depth and lay bare the seat of injury with greater security than formerly, but such extensive mutilations are not art, and, moreover, may be productive of incalculable harm.

The surgeon in such a dilemma now turns to the latest and one of the most invaluable gifts of modern science, to the utilization of the Roentgen rays, that he may critically inspect the naked framework of the bones, and spare his patient the dangers of sanguineous surgery. But, unfortunately, here disappointment may await him, for the skiagraph is neither a positive nor definite resource, in a considerable number of osseous disorganizations which are not readily detected by ordinary means. For example, quite a few cases have been reported where it has pointed to cleavage and rents in bones that did not exist, and vice versa, indicated osseous perfection, where crepitus and mobility established, beyond question, the presence of fractures. Speaking from an abundant experience with the radiograph, Tracy, of Boston, says: "While much has been gained in accuracy of diagnosis by the aid of the

X-ray's pictures, there is one branch of practical medicine where harm is threatened by their employment. I refer to medical jurisprudence . . . . their indiscriminate admission will hurt the cause of justice, because they can easily lead to fallacy and error." He goes on to show where the deformity of a Colles' fracture may be photographed in the normal limb.

Dr. P. M. Jones is more optimistic and says: "Here we have an agent which cannot err; if it gives an answer at all, it must be truthful, and shows to the examiner the actual conditions." (Journal of the American Medical Association, November 6, 1897.) The former is a practical surgeon and the latter a teacher of electro-therapeutics. Possibly, sometimes error comes through want of skill in photographing; but when the sketching is done by experts, ignorance cannot be charged. And these are the very instances where the greatest fallacies have been demonstrated. Dowd has lately verbally reported a case of fracture of the leg, three days old. The patient, inspired by curious motives, had the limb skiagraphed; but the pictures were identical in both tibia, and he refused to pay the bill for professional attendance on the ground that he had no fracture.

The past summer, at the University Hospital, London, it was my privilege to witness an operation by Mr. Barker on a girl's hip. It was a case of old dislocation. A large, well-developed X-ray photograph showed the head of the femur resting on the dorsum ilii, a deep, hollow cavity marking the site of the acetabulum. But, on section, no trace of the femoral head was in evidence, and the acetabulum was entirely obliterated by absorption, a smooth, hard surface only remaining. I saw a somewhat similar case at the Laraboisiere in Paris, where the ray exhibited a subcoracoid dislocation of the humerus. In vain varied and repeated efforts were made to reduce it. Section showed no luxation at all, but a fracture through the anatomical neck. The skiagraph is the most valuable diagnostic aid we possess, and in conjunction with other resources, of great assistance, but alone, unreliable.

RESTORATION OF FUNCTION AFTER DISLOCATION.

After dislocation of a limb, one of four things may occur:

1. It may be overlooked; something which happens oftener than is commonly supposed.
2. It may be reduced; the ordinary event.
3. It may be irreducible; quite unusual.
4. It may be reducible, but cannot be retained; rare in most articulations, but common in one.
5. Exclusive of scapulo-clavicular dislocations, which as a class cannot be retained after reduction, there are others in which reduction cannot be maintained, because of a chipping off or fracture of the rim of the mortice.

That a person may go about unconscious of a luxation, goes to show that dislodgment of a bone from its socket is not always incompatible with the retention of a fair degree of function remaining. This is notoriously the case in the humero-scapular and claviculo-scapular luxations. Dislocations of the acromial end of the clavicle, when complete, are rarely reducible and seldom or never can be retained.

Failure of reduction or retention invariably implies permanency of defect in a limb, though rarely to such a degree as to incapacitate one from his ordinary employment, if this does not entail heavy labor.

FRACTURE-DISLOCATIONS AND DISLOCATION FRACTURES.

By the former we designate those traumatisms in which the disorganization of bones is the dominant factor, as in Potts' or Colles' fracture, or fractures of the humerus, with simultaneous dislodgment of the scapular head, a condition readily detected when impaction is absent.

Dislocation-fracture is one which is produced by the head of the bone impinging on the border or margin of the mortice or joint-hollow. The best description of this important lesion is given by Senn, who collected twenty-eight cases, and more recently by Dr. Edmund Andrews, of Chicago, who designates this "rim-fracture."

(Fractures of the Rim of the Acetabulum and the Margins of Other Joints Complicating Dislocations. International Clinics, Vol. VIII, seventh series, October, 1897). In these cases retention after reduction of the bone fails, because of loss of osseous support. Accuracy of diagnosis in this class is of the highest importance because of its bearing on prognosis; and here the Roentgen rays render possible the precise recognition of the lesion, without division of the soft parts, a boon of priceless value.

No. 115 West Forty-ninth Street.

THE DIATASE OF MALT.

BY J. R. CLAUSEN, A. M., M. D.

The similarity between the diastase of malt and the ptyalin of the saliva has been recognized by leading scientists for years past, and its value in the treatment of different forms of starchy indigestion has been ably set forth in the medical press both of this country and Europe.

The use of diastase in medicine, however, has not met with the ready recognition from the medical profession that its value as a remedial agent demands. Where malt products containing diastase have been prescribed it has been more on account of their food value than for the diastase contained therein, its beneficial effects in amylaceous indigestion being entirely overlooked.

Recently, however, the preparations put out by the Malt Diastase Company, of New York City, have attracted much attention and called forth much favorable comment from the profession in general.

That they are greatly superior to all malt preparations heretofore produced is beyond question, while their value in the treatment of all complaints arising from the imperfect assimilation of starchy and vegetable foods has been amply demonstrated.

Maltzyme, the name of the product of the Malt Diastase Company, is prepared by an absolutely new and improved process, by which the diastasic properties of the malt are retained intact, togethere with all the phosphates of the grain.

It is offered to the profession in four forms — Maltzyme (plain), Maltzyme with Cod Liver Oil, Maltzyme with Cascara Sagrada, and Maltzyme with Hypophosphites.

In all these combinations the diastasic properties of Maltzyme are retained, while no inert matter whatever is used.

The exceptional limpidity and palatability secured by the process employed by the Malt Diastase Company make them easy of administration and add materially to their value in general practice.

In my private practice I have secured markedly satisfactory results from the use of Maltzyme, especially in combination with Cascara Sagrada and with Hypophosphites, and I can personally give it my most unqualified indorsement.

Editorial

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REGULATIONS FOR APPLICATION TO THE MEDICAL CORPS SERVICE OF THE UNITED STATES ARMY.

The Medical Corps of the Army consists of a surgeon general with the rank of brigadier general, six assistant surgeons general with the rank of colonel, ten deputy surgeons general with the rank of lieutenant colonel, fifty surgeons with the rank of major and one hundred and ten assistant surgeons with the rank of first lieutenant, mounted, for the first five years, and the rank of captain, mounted, thereafter, until promoted to major. Promotion through the intermediate grades of rank from that of captain to that of colonel is by seniority, but there is an examination for the rank of captain and another for that of major, to ascertain the fitness of the officer for promotion. Advancement to lieutenant colonel and colonel takes place without further examination. The surgeon general is selected by the President from among the members of the corps. All vacancies are filled by appointment to the junior grade.

To each rank is attached a fixed annual salary, which is received in monthly payments, and this is increased by ten per cent. for each period of five years' service until a maximum of forty per cent. is reached. An assistant surgeon, with the rank of first lieutenant, mounted, receives $1600 per annum, or $133.33 monthly. At the end of five years he is promoted to captain and receives $2000 a year, which, with the increase of ten per cent. for five years' service, is $2200, or $183.33 per month. After ten years' service he receives $2400, after fifteen years $2600, and if he remains a captain after twenty years, $2800 per year. The pay attached to the rank of major is $2500 a year, which, with ten per cent. added for each five years' service, becomes $3250 after fifteen years, and $3500 after twenty years. The monthly pay of lieutenant-colonel, colonel and brigadier general is $333.33, $375 and $458.33 respectively. Officers in addition to their pay proper are furnished with a liberal allowance of quarters according to rank, either in kind, or, where no

suitable Government building is available, by commutation. When traveling on duty an officer receives four cents per mile and reimbursement of money actually expended for railroad or other fares. On change of station he is entitled to transportation for professional books and papers, and a reasonable amount of baggage at Government expense. Mounted officers, including all officers of the Medical Corps, are provided with forage, stabling and transportation for horses owned and actually kept by them, not exceeding two for all ranks below a brigadier. Groceries and other articles may be purchased from the Commissary, and fuel from the Quartermaster's Department at about wholesale cost price. Books and instruments are supplied in abundance for the use of medical officers in the performance of their duties.

ARMY MEDICAL SCHOOL.

In 1893 the Secretary of War authorized the establishment of an Army Medical School in the city of Washington for the purpose of instructing medical officers who have been appointed since the last preceding term of the school, and such others as may be authorized to attend.

The course of instruction is for five months, and will be given annually at the Army Medical Museum, in Washington city, commencing in November.

Five professors have been selected from among the senior medical officers of the army, stationed in or near the city of Washington, also an instructor in first aid and ambulance drill.

The faculty of the Army Medical School consists of—

1. A President of the Faculty, who is responsible for the discipline of the school, and who delivers a course of lectures upon the duties of medical officers in war and peace (including property responsibility, examination of recruits, certificates of disability, reports, rights and privileges, customs of service, etc.).

2. A Professor of Military Surgery (including the care and transportation of wounded, and operative surgery).

3. A Professor of Military Hygiene (including practical instruction in the examination of air, water, food and clothing from a sanitary point of view).

4. A Professor of Military Medicine.

5. A Professor of Clinical and Sanitary Microscopy (including bacteriology and urinology).

DUTIES AND PRIVILEGES.

A medical officer after completing the course of instruction at the Army Medical School is first assigned to duty as junior at a large military post. His stations after that are likely to alternate between the frontier and more desirable points, a tour of duty being usually four years at once place.

Leave of absence on full pay is allowed at the rate of one month per year, and this when not taken may accumulate to a maximum of four months, which at the end of four years is then available as one continuous leave. Beyond this an officer may still be absent with permission on half pay. Absence from duty on account of sickness involves no loss of pay.

Medical officers are entitled to the privilege of retirement at any time for disability incurred in the line of duty, or after forty years' service. On attaining the age of sixty-four they are placed upon the retired list by virtue of law. Retired officers receive three-fourths the amount of their pay proper at the time of retirement.

When medical officers with the rank of captain approach the period of their examination for promotion to a majority they are usually assigned to duty as attending surgeons in the principal medical centers of the United States, to enable them to become familiar with the practice of the leading physicians and surgeons in this country, and to attend medical lectures, meetings of medical societies, etc. These assignments are made for one year only, in order that as many medical officers as possible may be enabled to avail themselves of the advantages thereby af-

forded. At the end of this tour of duty they are required to make a detailed report to the surgeon general showing how much of their time has been occupied by their official duties and to what extent they have availed themselves of the advantages offered for professional advancement.

EXAMINATION AND APPOINTMENT.

Appointments to the Medical Corps of the Army are made by the President after the applicant has passed a successful examination before the Army Medical Examining Board and has been recommended by the Surgeon General. Due notice of the meeting of the Board is published in the medical journals. Permission to appear before the Board is obtained by letter to the Secretary of War, which must be in the handwriting of the applicant, giving the date and place of his birth and the place and State of which he is a permanent resident, and inclosing certificates, based on personal acquaintance, from at least two reputable persons as to his citizenship, character and habits. The candidate must be a citizen of the United States, between twenty-two and twenty-nine years old, of sound health and good character, and a graduate of some regular medical college, in evidence of which his diploma will be submitted to the Board. The scope of the examination includes the morals, habits, physical and mental qualifications of the candidate, and his general aptitude for service; and the Board will report unfavorably should it have a reasonable doubt of his efficiency in any of these particulars.

The physical examination comes first in order, and must be thorough. Candidates who fall below sixty-four inches in height will be rejected. Each candidate is also required to certify "that he labors under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required." Errors of refraction, when not excessive, and not accompanied by ocular disease, and when correctible by appropriate glasses, are not causes for rejection.

The mental examinations are conducted by both written and oral questions, upon—

I. Elementary branches of a common school education, including arithmetic, the history and geography of the United States, physics, ancient and modern history, and general literature. Candidates claiming especial knowledge of the higher mathematics, ancient or modern languages, drawing, analytical chemistry or branches of natural science, will be examined in those subjects as accomplishments, and will receive due credit therefor, according to their proficiency.

II. Professional branches, including anatomy, physiology, chemistry, hygience, pathology and bacteriology, therapeutics and material medica, surgery, practice of medicine, obstetrics, and the diseases of women and children.

Examinations are also conducted at the bedside in clinical medicine and surgery, and operations and demonstrations are required to be made by the candidate upon the cadaver.

Hospital training and practical experience in the practice of medicine, surgery and obstetrics are essential to candidates seeking admission to the Medical Corps of the army, who will be expected to present evidence that they have had at least one year's hospital experience, or the equivalent of this in practice.

To save unnecessary expense to candidates residing at a considerable distance from Washington, those who desire it may have a preliminary physical examination and a mental examination in the "elementary branches of a common school education," by a medical officer of the army stationed most conveniently for this purpose, who will act under instructions from the Medical Examining Board.

The merits of the candidates in each of the several branches, and also their relative merit as evinced by the results obtained from the entire examination, will be reported by the Board, and in accordance with this report approved candidates are appointed to existing vacancies or to such as may occur within two years one examination may be allowed a

thereafter. An applicant failing in second after one year, but not a third. No concession can be made for the expenses of persons undergoing examination, but those who receive appointments will be entitled to travel allowances in obeying the first order assigning them to duty.

There are three vacancies in the corps to be filled.

Book Reviews.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In 20 volumes. Volume XIII, "Infectious Diseases." New York. William Wood & Co. 1898.

The thirteenth volume of this work is in no way inferior to its predecessors, and its contents come from the pens of some of the best medical writers of the period. It treats of infectious diseases, opening with a chapter on ptomaines, toxins and leucomains by Dr. Victor C. Vaughan, of Ann Arbor, Mich. This chapter is very broad and interesting, entering into a discussion of the various poisons as indicated.

Infection and immunity forms the subject of the next chapter, by Dr. Harold C. Ernst, of Boston. The various channels of infection are cited and the predisposition to infection discussed.

Waterborne diseases is the subject of a chapter by the late editor of the British Medical Journal, Mr. Ernest Hart, and Solomon C. Smith. This is a subject in which the late Mr. Hart was much interested, and contributes in no small way to our knowledge of diseases from contamination of water.

The duration of the periods of incubation and infectiousness in acute specific diseases is the subject of the next chapter, by Mr. Dawson Williams, London, which the title explains.

"Smallpox," by Dr. John W. Moore, of Dublin, is the subject of an excellent chapter on this disease. It is followed by one on "Vaccination" by P. Brouardel, Paris, which is also exhaustive.

"Mumps," by Jules Comby, of Paris, finishes this volume.

Every additional volume of this magnificent series, called the "Twentieth Century Practice," impresses us with additional force that it will stand completed the most essential work of the period for the medical practitioner.

SEXUAL NEURASTHENIA—Its hygienic causes, symptoms and treatment. By George M. Beard, A. M., M. D., New York. Edited with notes and additions by A. D. Rockwell, A. M., M. D. New York. Price $2.00. E. B. Treat & Co., publishers, 241 West Twenty-third street, New York. Fifth edition.

When a book has reached its fifth edition in the remarkably short space of time that this one has there is little left for the reviewer to say. In fact the public have already reviewed it in a manner most satisfactory to the authors. This edition, however, has been so enlarged and the electro-therapeutic management of this class of diseases introduced in such a manner as to make it a valuable addition to the previous editions.

Messrs. E. B. Treat & Co., of New York, will shortly issue their Medical Annual, which, as on previous occasions, bids fair, according to the prospectus, to eclipse any other.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

A CASE OF SPONTANEOUS ANEURISM OF THE RADIAL ARTERY IN THE TABATIERE: TREATMENT BY EXCISION OF THE SAC—RECOVERY.

BY ROBERT BRAMWELL SMITH, M. R. C. S., ENG.

On January 25, 1896, I was called to see a woman who was suffering from hemiplegia of the right side. Speech and deglutition were affected, I was told that two weeks previously she had had a stroke whilst engaged in household duties. On examining the right arm I noticed a fluctuating swelling about the size of a large marble in the space known as the "tabatiere anatomique." Near the back and outer side of the wrist joint this swelling had all the classical signs of an aneurism. After about three months' treatment by rest and the administration of iodide of potassium the patient improved so much that she was able to use her limbs fairly well and her speech gradually returned. I then elicited the following history: She was 57 years of age, married, of mixed Spanish and English blood, and a dressmaker by occupation. At the age of 14 years she had had her right leg amputated at the knee for incurable disease of the foot. She had had 14 confinements at full term, the forceps being used in every case. Twice craniotomy had been performed and 12 children were born alive. Nine of the children were then alive and all were apparently healthy and of adult age. Two had died in youth from scarlet fever and one from bronchitis. She had had no miscarriages and there was no history of syphilis. At the age of 27 years (30 years previously) she had had a "stroke." Paralysis of one side followed and she lost her sight for ten days. This occurred a fortnight after one of her confinements. On examination a well-marked systolic bruit was to be heard at the junction of the sternum and the manubrium, which was conveyed along the carotids with great distinctness. On passing the fingertips over the vessels of the neck the peculiar rosary-like feel of atheroma was experienced. Not the slightest sign of degeneration could be detected by the fingers in either the brachial, radial or ulnar arteries of either side. Arcus senilis was well developed. The patient first noticed the swelling at the wrist about five years previously, her attention being drawn to it by the uneasy sensation produced when she used her scissors. There was no history of injury whatever. I had the patient under observation for the rest of the year 1896. On March 18 I began to treat the aneurism as the patient felt a great deal of pain proceeding up the arm from the swelling. Pressure over the radial artery above the sac, together with pressure below and upon the sac by means of an elastic bandage was applied on three different occasions for some hours each time and discontinued when pain was too severe for the patient to bear. Pressure was kept up on the radial artery in the intervals. At the end of three weeks the pulsations had ceased altogether in the sac. Unfortunately, the cure was not permanent; probably from voluntary movement of the thumb the clot was disturbed and pulsation began to show itself. Rather strangely, at the time that the pulsation was noticed the patient had a third, though slighter, attack of hemiplegia. In addition to the paralysis there were several shorter attacks of spasm of the muscles of the arm on the affected side. The arm was brought round and the muscles were held in a condition of tonic contraction. There was well-marked anaesthesia all down the right side. The symptoms of paralysis left her by November, when she was persuaded to see Mr. Thomas Jones, at the Manchester

Royal Infirmary, and he advised excision. As the patient now had great pain and as her hand was useless I determined to operate after showing the case at a meeting of the Manchester Medical Society. On December 26 the patient was put under chloroform and the brachial artery being controlled by digital pressure I made an incision of three inches in length directly over the swelling. The superficial structures and fascia were cut through and several large veins were cut and clamped. The sac was exposed, occupying the space between the tendons of the extensor ossis metacarpi pollicis, extensor primi internodii pollicis, and extensor secundi internodii pollicis, passing under the latter tendon. After some dissection, owing to the tumor extending into the substance of the abductor indicis, two branches were seen proceeding from the distal end of the sac, one being probably the continuation of the radial artery to the deep palmar arch. These, and the radial artery itself, which was much enlarged, were tied with recently boiled silk, and the wound was sutured with silkworm gut. No drainage tube was used, and the wound was dressed with Lister's double cyanide gauze.

Two weeks after the operation the wound had healed by first intention, except where one suture had been disturbed. In three weeks the wound was healed and the patient, contrary to my advice, was at work with her machine. Within a month she had done a day's washing. The aneurism was of about the size of a large marble or a chestnut and of the sacculated variety. It was partly filled with a firmish white clot. The points of interest are 1. The rarity of non-traumatic aneurism in the radial artery. 2. The absence of any satisfactory reason for the formation of an aneurism in such situation. My own opinion is that the aneurism was due to embolism, and probably dated much further back than the period of five years during which the patient had noticed it. I believe the increased prominence of the symptoms were due to degenerative changes peculiar to the patient's age and that nature was attempting a cure in an imperfect way. I cannot help thinking that the clot in the sac being disturbed had something to do with the second and third attacks of hemiplegia. 3. The advantages of excision in accessible cases over other methods. The patient was a most unpromising subject for operative measures or chloroform narcosis, yet she made a perfect recovery without a single bad symptom.—Manchester.

SUCCESSFUL EVACUATION OF HYDATID CYSTS OF THE LIVER.

Cheney (Archives of Pediatrics, Vol. xiv, No. 11, p. 851) has reported the case of an Italian boy, seven years old, who came under observation with vague symptoms: Occasional pain in the right side, headache now and then but not constantly, and during the previous week several vomiting spells. His appetite was reported to be fair. He slept well at night and his bowels moved regularly each day, but his mother had noticed a swelling in the right side, about two years before, which had never disappeared, but had rather grown larger. The child appeared healthy, although his body and limbs were moderately emaciated. No icteric hue could be detected about the skin or conjunctivae. The tongue was heavily coated with a yellowish fur. On inspection a swelling was plainly visible in the region of the liver, and on palpation it was found to extend downward as far as the level of the anterior superior iliac spine, and inward to the median line. The swelling was evidently somewhat tender to the touch. Its outline was smooth, not nodular, and its consistence hard throughout most of the extent, but in one part, about three inches below the border of the rib, the swelling was distinctly fluctuating. Running across the right side of the abdomen, just below the border of the ribs, there was appreciable to touch and sight a sulcus or groove, apparently separating the mass below from the liver above. The lower border of the tumor was sharp and distinct, and the examining fingers

could easily be inserted beneath it, and it descended on deep inspiration. On percussion there was dulness over the area of swelling directly continuous with the liver-dulness above, but not extending to the lower edge of the tumor as determined by palpation. In a zone about two inches in width over the lowest portion of the tumor the percussion note was tympanitic. The dulness extended to the median line internally and to the axillary line externally. Directly back of the axillary line and posteriorly toward the spine the percussion note was tympanitic, the dulness not extending in that region below the normal liver-dulness. Heart, lungs and urinary secretion were normal. Fluoroscopic examination showed distinctly the upper rounded border of the liver rising and falling with each respiration, but it failed to give any idea of the relation of the parts below the level of the ribs and, therefore, left the character of the tumor in doubt. As a final resort puncture with a hypodermic needle was made at the point where fluctuation had been found, and fluid was obtained which was turbid and looked like thin pus. Under the microscope it showed many pus cells, but no echinococcus hooklets. The diagnosis lay between malignant disease, abscess or hydatid disease of the liver and sarcoma of the kidney or pyonephrosis. To remove the doubt an abdominal incision was made, when it was at once seen that the tumor involved the substance of the liver. From the superficial appearances it was thought to be an abscess of the liver and this organ was accordingly stitched to the edges of the incision, the wound packed with gauze and the boy put back in bed to await the formation of adhesions before opening the abscess. On incising the tumor three days after, thin turbid fluid escaped, together with numerous transparent glistening cysts the size of grapes. The cavity was washed out and the wall of the mother cyst removed. The latter when distended must have measured between four and six inches in diameter. After its removal the liver still seemed to be too large, so that a long hypodermic needle was passed from the cyst cavity upward into the liver beneath the ribs and with this there was withdrawn perfectly clear transparent fluid. An incision was then made in the track of the needle and another cyst, equally as large as the first, was evacuated of its contents of fluid and daughter cysts. Drainage tubes were inserted, the wound dressed and the boy put back to bed. He recovered slowly but without complication.

THE TREATMENT OF HEMORRHOIDS BY INJECTIONS.

The treatment of hemorrhoids by the injection of carbolic acid and glycerine, mixed in various proportions into the substance of each pile by means of a hypodermic syringe was first used by American surgeons. S. G. Shaleeta, of the Kieff Jewish Hospital (in a reprint from the South Russian Medical Gazette), has modified this method by using pure liquid carbolic acid, injecting each pile with a Pravaz's syringe to a certain degree of fullness, and completing the operation in one sitting. Two, three or four syringefuls of the acid are injected, according to the number and size of the tumors. For external piles he uses a mixture of two parts of pure carbolic acid to one part of a two per cent. of cocaine. Even if four syringefuls of this mixture are injected the quantity of cocaine is not sufficient to cause dangerous symptoms. As a matter of experience only a few drops should be injected where we have to deal with external piles, the syringe being introduced through the mucous membrance, and not through the skin. The history of 69 cases treated in this way is given, and the results in all cases were highly encouraging. When the piles shriveled up and separated the surface presented was similar to that produced by the operation for ligature or the clamp and cautery. The advantages which the author claims for this mode of treatment are: (1) Absence of marked pain during the injections; (2) no necessity for anesthesia (this is a great advantage in old and feeble patients, and those

exhausted by repeated hemorrhages); (3) little risk of suppression of urine following this operation; (4) no loss of blood during the operation; (5) no necessity to keep the bowels quiet for three or four days after the operation, as is the case in other methods of operating.

THE SURGICAL TREATMENT OF SUPPURATIVE PERICARDITIS.

Dr. John B. Roberts has published in the American Journal of Medical Sciences, December, 1897, an important paper on this subject. He deprecates tapping as both ineffectual and dangerous. In one case as many as ten aspirations had to be performed in thirty-four days; then death occurred. The heart has often been punctured, sometimes from a mistaken diagnosis, sometimes because it was adherent to the anterior wall of the pericardium; fluid confined behind the heart by adhesions cannot be evacuated. The prognosis after incision is good provided it is done early and there are no serious complications. An exploratory aspiration to determine the presence of pus should first be performed. The pleura is in danger of injury from puncture in the usual situations. From anatomical researches, following Delorme and Mignon, Dr. Roberts recommends that the needle should be thrust upwards and a little inwards in the upper part of the left xiphoid fossa. If pus is found he recommends resection of the thorax in the following manner: Two vertical excisions are made, one about a centimetre to the left of the middle line of the sternum and the other four or five centimetres external to this. The fourth and fifth costal cartilages are exposed at their sternal junctions and divided. Care must be taken not to puncture the pleura. The soft tissues in the fourth and fifth spaces and along the upper border of the sternum are cut through. The trap door so formed is raised and the mediastinal tissues are separated. The triangularis sterni and internal mammary vessels are then exposed. The former is divided close to the sternum within the line of the latter. With the finger or blunt instrument the fascia and muscular fibres are separated and the vessels and pleura pushed outwards. The white surface of the pericardium comes into view and is incised. If irrigation is employed two tubes should be used, one for exit. The drainage tubes can pass through the fifth space or through a hole in the fourth.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

Current Medical Literature.

A CONTRIBUTION TO THE LITERATURE OF EPIDEMIC INFLUENZA.

By DR. ALADAR BEKESS, Vienna.
(Translated from Wiener Med. Presse.)

During the winter of 1889—1890, when the influenza epidemic raged in Europe, many physicians thought they had encountered a new disease, as influenza had almost been forgotten, for the last visitation of an epidemic dated back some sixty years (1830 to 1833).

Influenza is an acute infectious disease, which remains latent in unknown regions for many years, only to make its appearance epidemically, yes, even at times endemically, throughout a country or a whole continent. The evidences of these epidemics can be traced back to the twelfth century (A. Hirsch). They do not disappear as quickly as they come, and only after numerous smaller or larger outbursts do they pass away entirely. Even now we hear of characteristic clinically-observed cases.

Climate and season seem to bear but little weight on the spread of this disease, although it has been noticed that the epidemics seldom occur in summer. As soon as an epidemic makes its appearance the larger part of the population without regard to sex, age or social standing contract the disease; the healthy and the sick, the strong and the weak, al are likewise attacked.

The treatment is mostly symptomatic. I give in the beginning, as in all infectious diseases, a laxative, preferably calomel, in doses of two to five grains for adults (one-tenth the amount for children). The calomel is divided into three powders, given at intervals of one hour. As long as the fever lasts rest and a fever diet are indicated. Formerly I employed internally and gave three to four times daily: Quinine, 3 grs.; antifebrin, 4 grs.; antipyrin, 10-15 grs.; sodium salicylate, 10-15 grs.

Since 1890, however, I use almost exclusively salipyrin, not only in influenza, but also in ordinary catarrhal affections, rheumatism and neuralgia. I prescribe as an evening dose 15 grs. (seldom 20 to 30 grs.), mornings generally one-half that amount, although at times I do give 10 to 15 grains. For children one-tenth to one-half the above-mentioned doses according to age. I never noticed any unpleasant after-effects from its use, and I was never compelled to resort to larger doses than those I have mentioned. With this remedy I have obtained, without a doubt, the best results, which now and then were almost phenomenal in character. I noticed, as has also v. Mosengeil, that salipyrin must be continued for some time in order to achieve a good result. I prescribe 10 grains at night for three to five days after the fever has disappeared. Even after the fever has fallen to the normal the patient should be confined to his room for a number of days. The eventual complications are to be treated by the usual accepted methods of therapeutics.

HYDROZONE AND GLYCOZONE IN THE TREATMENT OF GONORRHEA.

Prescott, Ariz., Aug. 16, 1897.

Sir:—My attention has been attracted to an article published in your journal for July 3 by Dr. J. A. Silverman, of Butte, Mont. The writer states that no antiseptic has been discovered that will destroy the gonococcus without doing injury to the mucous membrane. As I presume that he is open to conviction, I submit to you for publication the following report of three cases which I have successfully treated during the last few months with hydrozone

and glycozone, which I consider not only harmless, but the most powerful healing agents that I have ever used in my practice of 35 years.

Case 1.—A man called on me on June 20 with gonorrhea of four weeks' duration, with profuse discharge, micturition painful, and an acute burning sensation along the entire urethral tract. Pus sacs had formed in the canal, the meatus was inflamed, and the gonococcus was active, as determined by microscopical examination. I prescribed injections of one part of hydrozone and ten parts of sterilized lukewarm water, an ounce for each injection, four times daily. After two days I reduced the proportion to one part of hydrozone and 15 parts of lukewarm water, and I directed glycozone mixed with an equal amount of glycerin pure to be injected on his going to bed. The diet was not restricted, but no stimulants were permitted. In two days no gonococcus could be detected. The discharge was lessened, the pain and difficulty in micturition had ceased, and in 12 days the patient was well. Continence was imposed for two weeks. Doses of bromide of potassium and bicarbonate of sodium were administered from time to time in order to make the urine alkaline and quiet the patient.

Case 2.—A married man had contracted blennorrhea from a woman who had the whites. The same treatment was ordered, and with such satisfaction that the woman also was brought for examination and treatment. Result, a cure in each case within three weeks.

Case 3.—A man 50 years old contracted gonorrhea from a woman of the town. As the patient lived in the country, 20 miles out, no treatment was given until ten days after infection. Aggravated symptoms of gonorrhea were present, and there was chordee every night; the patient, to use his own expression, was "plumb wild." The hydrozone injections were ordered, one part to 20, owing to the great sensitiveness of the urethra and the possibility of orchitis if a stronger injection was used, as there was a slight swelling of the testicles. The glycozone, diluted with equal parts of pure glycerin, was ordered at night. I also gave glycozone internally in medicinal doses to allaw a gastric disturbance due to nervousness. In this case the treatment was continued for 25 days. I sent my patient to his cattle ranch happy.

—Warren E. Day, M. D., N. Y. Med Journal.

CONSTIPATION, ITS DANGERS —A HINT IN REGARD TO TREATMENT.

Without doubt, the most frequent departure from the normal state of health is found in the alimentary tract, and is commonly known as constipation.

It occurs in all classes, and is perhaps the most found in the upper classes of humanity, or those of sedentary habits.

This state of affairs may be due to disease, but more frequently it is due to habit first, and afterward it becomes, so to speak, the normal condition of many.

Generally speaking, constipation exists when the feces are retained beyond the usual or normal time, and evacuated with more or less difficulty. It has erroneously been supposed that constipation always signifies a difficult movement of the bowels, but this is not strictly true, as one may have only one movement every other day and yet the stools may be quite soluble. This condition is, however, not frequent, but it has been seen in the experience of the writer.

When constipation exists we will always find either a deficiency in the peristalic movement of the bowels, increased absorption, motor paralysis of the muscular coats of the bowels, or all of them. The stools are generally of a hard, indurated nature, the evacuations difficult and not as frequent as normally they should be.

ITS DANGERS.

The one great danger to be feared in this condition is auto-intoxication. Normally the waste products are regularly and speedily removed from the body. When they are retained we have at once an infective process set up. The retained material fur-

nishes food for the nutrition and multiplication of numerous pathogenic micro-organisms, and the eliminative apparatus is confronted with a new poison. When ptomaines are thus set at liberty in the human organism we have at once a retrograde tissue-changing process set up; they interfere with the metabolism of the leucocytes and another line of symptoms is set up. The most prominent among the latter are headaches, coated tongue, cold and numb extremities, cardiac irregularity and a general feeling of malaise.

TREATMENT.

For the alleviation of this trouble it is important that one remembers the great factor that habit plays in this particular. The patient should make an attempt to visit the toilet at regular stated intervals and make an effort to have an evacuation of the bowels. It is surprising how much can be accomplished in the proper direction by this simple means.

This, however, will not overcome peristalic inactivity, it wil not lessen absorption, and it will not restore a liver that may have been inactive for a long time.

These indications must be met by a medical adviser of the patient and the proper medicines administered.

A drug that meets the requirements in the majority of cases of this kind is senna, one of the oldest and best-known laxatives. It has a mild but potent action on a torpid liver, and causes free and easy evacuations of the bowels. The Californit Fig Syrup Co. have recognized the value of this drug and have given it the foremost pisition in their elegant and efficient preparation, which they have named Syrup of Figs.

The value of this preparation is most marked when used in the cases of pregnant women and children, as it produces no pain of a griping nature. It is easy to take and answers every purpose required of a laxative.

Its palatability is a great factor in its administration to children, and even to adults, as there is frequently an idiosyncrasy against drugs of a nauseating character, while its admirable action places it in the foremost ranks as a remedy for the disease under discussion.

—J. D. Albright, M. D., Pottsville, Pa., Jan. 18, 1898.

INFANTILE DIPHTHERIA AND PREVENTIVE INOCULATION.

Riether (Wein. klin. Woch., 1897, No. 28) replies to the numerous papers which have recently appeared on the immunity of sucklings to diphtheria by quoting a series of 31 cases occurring within two years in a foundling hospital with which he is connected; of these only seven recovered. The disease is hence not frequent, but by no means so exceptionally rare as has been asserted. It is practically almost always primarily nasal, the acid contents of the mouths of sucklings preventing, as Monti has shown, the growth of the Klebs-Loeffler bacillus. A case which was at first regarded as primary oral diphtheria was proved bacteriologically to be streptococcal stomatitis; the child got well. One of the other cases was exceptional in that the primary affection was of the unhealed umbilicus, the fauces being attacked secondarily. The disease almost invariably attacked weak and reduced children. It being found impossible to stamp the diphtheria out by room and house disinfection, it was decided to give all children a prophylactic inoculation of 100 units of Paltauf's antitoxin. Of 1450 children thus treated, although in other respects no further safeguard against diphtheria was used, only two contracted the disease. Each of these was extremely weakly, and in each the onset dated from seven weeks after the inoculation. In 1897 no case of diphtheria had developed in the hospital, the only ones under treatment having been brought in ill. There was evidence also that this prophylaxis was diminishing the spread of diphtheria outside the institution as well. The children varied in age from a few hours to two or three months; 240 died of various causes unconnected with the inoculation, and in no one of them was any affection of the kidneys detected. In two there were minute abscesses, the size of a pea, at the site of injection, and in a few a mild

erythema developed at the same spot. An urticarial eruption which also appeared in rare cases could not certainly be attributed to the antitoxin. The author thus considers himself justified in stating that antidiphtheria serum can be injected without danger beneath the skin of infants in the first days or weeks of life, and that 100 units serve as a protection against the disease for five or six weeks. It may be added that this is the largest series of prophylactic inoculations against diphtheria hitherto recorded.

MULTIPLE NEURITIS FOLLOWING INFLUENZA.

Herman B. Allyn has made an extensive study of multiple neuritis following influenza, in which he points out that influenza, like other toxic diseases, is frequently followed by severe lesions of the peripheral nerves, either sex equally liable. According to the cases collected by this author, the condition occurs most frequently between 25 and 45 years, and is most apt to appear during convalescence, sometimes as late as three weeks after the subsidence of the disease. There may be sensory, motor, vasomotor, or trophic symptoms, or all may occur together, but he finds that the sensory and vasomotor effects are the most frequent, therein contrasting with diphtheria and other causes of multiple neuritis. The prognosis is, as a rule, good, recovery usually taking place with complete restoration of function and power, though in five out of thirty-six cases death occurred, in some cases from general motor paralysis, in others from more severe local effects as lingual and pharyngeal paralysis. Recovery may be delayed for months, but the average seems to be about four weeks. The treatment consists, first, in absolute rest in bed; secondly, in the administration of anodynes when pain is severe. Morphine or codeine are of great service, and the writer has also found salicylate of cinchonidine useful, particularly in cases where the pain is not so intense. Later on, potassium iodide and mercuric chloride in small doses may be useful, and if the pain be localized in a limb, firm pressure as by a flannel bandage often gives relief, and even blistering over the painful nerve has been tried with good effect. The action of the heart and the character of the respiration require careful attention, especially the latter, as diaphragmatic paralysis is not an infrequent complication. The nutrition of the patient requires careful watching, and the author recommends that medication be purely hypodermic, the stomach being reserved for food, this point being particularly important in the administration of anoydnes. The writer concludes his paper by an interesting remark that neuritis following follicular tonsillitis is perhaps in some cases influenzal rather than diphtheritic, as some forms of sore throat are accompanied by as much headache, bachache and prostration as are found in any case of undoubted influenza, and such cases of neuritis do not always show the more purely motor symptoms that characterize the diphtheritic form.

—Jour. Amer. Med. Assn., July 24, '97.

INSERTION OF ARTIFICIAL GLOBE INTO TENON'S CAPSULE.

Morton thus describes the method he has carried out: The patient being anesthetized, a circular incision was made in the conjunctiva, close to the corneal limbus. The internal rectus was dissected free from surrounding tissue up to its attachment to the globe, and held by a pair of advancement forceps, after which it was cut close to the sclera. A double needle catgut suture was passed from within outward, inclosing the central bundle of the tendon, and tied on its external surface. The ends of the suture, which are cut to a generous length, are now laid aside to the nasal side of the field of operation. The external, the superior, and the inferior recti are treated in a similar manner. The oblique muscles are cut, and, no suture being used, escape. The globe is removed after section of the nerves, and all capillary hemorrhage stopped before proceeding. The glass sphere is now placed into the cavity

previously occupied by the eyeball, and now lined with the parietal and a portion of the visceral layer of Tenon's capsule. The sutures holding the externus and the internus are now taken by the operator, the assistant taking at the same time the sutures retaining the superior and inferior recti. Before the second turn is made in the sutures held by the operator the assistant ties his sutures together, and these are inclosed in the final turn of the knot holding the external and internal recti. The sutures are now inclosed in a common knot at their intersection. This process of tying the sutures is of vital importance. In the first place, should the sutures slip over the glass sphere—the horizontal up or down, the vertical in or out—it would escape from the cavity as placed, and put all of the strain upon the light silk sutures in the conjunctival wound. Moreover, should the suture slip, the normal position of the muscles—as retained by this method—upon the glass ball is disturbed, and a condition of unequal tension results, which destroys the proper movements of the artificial bulb. This is a point in the operation which the author lays stress upon—that is, the careful adaptation of the sutures, so that the tendons assume the same position they occupied in the living eye. By attention to this point, which is obtained by the method of tying the sutures, the excursions of the artificial ball are as unrestricted as in Mules' operation. The muscles are retained in their place by a process of adhesive inflammation to the overlying and surrounding conjunctiva, which is completed before the sutures are absorbed. It must be clearly understood that the tendons are not sutured together, but merely held in a normal position until retained by the inflammatory process. The catgut sutures and sphere are now covered by the conjunctiva, which is held by interrupted sutures of Chinese silk. Some finely-powdered iodoform is dusted into the cul-de-sac, and a bandage is applied and allowed to remain for three days. It is interesting to note that the reaction which followed in this operation was very slight, and caused the patient no pain or elevation of temperature. The ball was not sensitive, and at the end of three weeks the patient wore the artificial eye with comfort. Morton thinks the operation applicable in cases where the eye is atrophic and obviously unfit for a glass sphere; secondly, in cases where the tunics are badly lacerated from severe injury. As in Mules' operation, so here the artificial ball, by holding the prothesis closer to the inner canthus and puncta, permits the tears to drain away almost as perfectly as in the normal eye.

—N. Y. Med. Jour.

ULCERATION OF WOMB AND CERVIX.

Miss C—— G——, New York; American; age 24; admitted September 10, 1897; examination revealing severe ulcerative endometritis, accompanied by profuse lucorrhoea of the most fetid character. On the cervix, posteriorly, grew a polypus as large as an English walnut or Madeira nut. The condition was of two years' standing, during which time it had been under constant treatment by a succession of physicians, had been twice curetted, but in spite of all efforts had gradually grown worse. There had been no menses for the last six months; but when they were due, she suffered severe neuralgic pain, confined to the ovaries. I determined that a thorough curettement was necessary, but thought it wise to prepare the patient, as she was in a very run down condition, with a regimen of bovinine, a teaspoonful in milk, grape juice, old port wine and beer, alternately, every two hours. She was put to bed on the 11th and hot douches of Thiersch, four quarts, were ordered night and morning. The following day, a bovinine tampon was applied well back in the cul de sac of Douglas, as there was a slight misplacement. On the 16th, the polypus was removed by torsion, the surface exposed was touched up with 25 per cent. pyrozone, and an iodoform-bovinine tampon was applied. (That surface was completely healed by the 26th.) On the 25th

I thoroughly curetted the uterus and cervix; removing, together with the granulations, two smaller polypi of the size of hazel nuts. The bovinine-peroxide reaction was then applied by injection into the uterus, and the product washed out as usual with Thiersch solution. The womb was then packed with bovinine gauze, prepared in the following manner: Narrow strips of bi-sterilized gauze a yard long were dipped in bovinine, wrung out and packed into the uterine cavity; a bovinine tampon was inserted, and a napkin and T-bandage applied. This treatment and dressing were repeated on the 27th and 28th. Menstruation being due on the 30th, I decided not to remove the packing again until that date, in the hope that the flow would come on and carry it away by mechanical force. In this I was not disappointed—the patient having from the beginning continued taking a teaspoonful of bovinine every two hours. About 4 P. M. on September 30th menstruation appeared fully and freely, without any pain whatever, and lasted until October 3d. On the 4th, examination found the mucous membrane lining the vagina thoroughly anaemic, and I therefore determined to employ local feeding, as well as support to the womb, which is necessary after all cases of curettement. Bovinine tampons were applied daily until the 12th, and every other day thereafter until November 1st.

It should have been mentioned that on September 23 the initial lesion of syphilis appeared on the right labium major, ran on to its full development, and on October 14th secondary symptoms began to appear; eruption, falling out of hair, sore throat and pains in bones. For this condition, besides the bovinine, one-fourth of a grain of merc. biniodide had been given three times a day; this being continued until November 22d, when the eruption was fading and the general condition was good.

November 1st the bovinine had been increased to a tablespoonful every three hours. On the 14th the bovinine tamponing was changed from every other day to twice a week. The condition of the uterus and cervix was now entirely well; the mucous membrane of the vagina was much improved, but was still decidedly anaemic; consequently the womb and vagina were thoroughly sprayed with bovinine every night until December 10. After this date a tampon was applied daily, of boroglycerol, glycerine and alum when the patient was allowed to go out walking, in order to support the womb and to contract the surrounding tissues, which had become more or less relaxed. December 15th the eruption had entirely disappeared, as well as all other syphilitic symptoms. The patient was, however, impressed with the necessity of keeping up anti-syphilitic treatment for at least two years.

December 22 the patient was discharged, absolutely cured of uterine trouble, with instructions to continue bovinine, a teaspoonful every three hours, in milk, grape juice, or old port wine; also one-fourth grain protiodide of mercury every three hours; and to report at regular intervals.

ASTHMA TREATED BY ANTI-DIPHTHERIA SERUM.

L. Revilloid was induced to try anti-diphtheria serum in the treatment of true spasmodic asthma (asthma from organic chest lesions or nasal polypi, etc., is not included in this) by the following considerations: (1) An asthmatic attack is probably an attempt to eliminate by the respiratory passages a volatile poison, which is at the same time the cause of the attack. (2) The classical drug for asthma, namely, iodide of potassium, is excreted by the respiratory tract, and probably acts by facilitating gaseous excretion, and rendering unnecessary the asthmatic dyspnea. (3) Anti-diphtheria serum, apart from its specific action on the diphtheria toxins, is excreted by the respiratory tract, as shown by its effect in loosening the false membranes. An outward excretory current is thus set up, and the vitality of the mucosa modified, just as is the case with iodide and chlorate of potassium. (4) Iodides, anti-diphtheria serum, and asthma have this in

common—that they all frequently produce rashes, which shows that the skin as well as the lungs is an excretory channel. (5) This treatment need not violate the fundamental doctrine of serumtherapy. For diseases apparently different may be allied in one or more points, and thus it is that quinine cures other diseases than malaria, mercury than syphilis, and that chlorate of potassium acts as well in ulcerative as in mercurial stomatitis. In accordance with this Revilloid finds that antidiphtheria serum has an action as brilliant in streptococcic as in diphtheritic angina. Seven cases of asthma were thus treated, with the following results: (1) Three cured; (a) male, aged 24; asthmatic attacks every night for six years; respiration always noisy and shallow; numberless methods of treatment without result; complete cure after ten injections of 10 c. cm. of Roux's serum spread over five months. No relapse when seen six and a half months later. (b) Female, aged 40, rheumatic subject, asthmatic attacks every night for seven months; other treatment without effect; cured by three injections of 10 c. cm. of the serum in ten days, and remained quite well when seen five months later. (c) male, aged 36; asthmatic and short of breath since bronchitis eight years ago; for last month attacks every evening between five and eleven, and at other times if fatigued, etc.; other treatment unavailing; cured by six serum injections in two months. (2) One permanently relieved; male, aged 56; asthma 44 years; three injections in ten days. (3) Three cases temporarily relieved, but the treatment was not always persevered in. The injections cause at first the attacks to be less severe, then at greater intervals. An injection was usually given whenever an attack threatened.

—Rev. Med. de la Suisse Rom.

ARECOLINE AS A MYOTIC.

Bietti has been investigating the action of this alkaloid obtained from areca or betel nut. A one per cent. solution instilled into the conjunctival sac causes some burning and lachrymation and hyperemia. After four or five minutes the pupil begins to contract, maximal contraction being reached in about twelve minutes; this lasts a quarter of an hour, after which the pupil regains its normal size in about two hours, or three hours if a two per cent. hydrobromate solution is used. At the third minute the ciliary muscle begins to contract, as shown by approximation of the near point; this goes on to a maximum till the tenth or twelfth minute, after which the near point recedes to its normal position in the course of forty or fifty minutes. Cocaine in four per cent. solution does not hinder the action of arecoline on the pupil. Arecoline is unable to overcome the mydriatic action of atrophine or scopolamine. In the case of a woman with simple glaucoma in both eyes arecoline produced contraction of the pupil where one per cent. eserine failed. It would appear to act more promptly and more energetically than eserine, but its duration of action is less.

—Archivis di Ottalmologia.

OLIVE OIL IN HEPATIC COLIC.

Barth reports the successful result of the administration of large amounts of olive oil in two cases of hepatic colic with icterus, caused by incarcerated gallstones. In one case 200 grams were taken every other day, and in the other 150 grams each day, the taste improved by a few drops of essence of anise. Part of the oil was found in the feces in a saponified condition, in the shape of small green particles which were at first erroneously supposed to be fragments of the gallstones. The rest was split into stearic acid and glycerin. The oil, besides lubricating the mucous surfaces and thus facilitating the expulsion of the stones, excites powerfully the secretion of bile, which flushes the biliary passages and removes particles that might ultimately develop into stones. On account of the increased secretion of bile, oil affects the system injuriously in adhesive cholecystitis, and it is also useless in dilatation and ascending suppurating infection of the biliary passages, and even injurious on account of the impaired

digestion and extra work forced on the liver.—Semaine Med., Dec. 1, 1897.

PROPLAPSUS OF THE FEMALE URETHRA.

This trouble is rare (100 to 120 cases on record). It sometimes occurs during a coughing paroxysm in pertussis. Various methods of treatment have been devised, but the use of the knife is frequently followed by stenosis, and by death in one case. Emmet's "buttonhole" is not advisable on account of the fistula left and the double operation. Kleinwachter's method of slitting the urethra and suturing the beginning of the prolapsus to the base, is only applicable to partial inversion, but Israel's method is effective, simple and permanent in its results, as Wohlgemuth has confirmed recently, describing his experience with it in the Deutsche Med. Woch. of November 4. The protruding mucous surface is cauterized in narcosis with the Paquelin in a radiating series of burnt stripes lengthwise of the urethra, through the entire thickness of the mucosa The cicatricial contraction that results puts an end to the prolapsus. Two applications were necessary.

DEEP INCISION OF CERVIX IN LABOR

Barkman published last year an important report, in the Bohemian language, on the results of this practice, after Skutsch and Duhrssen, in the Prague Maternity School. In 3855 labors (1892-95) incision was practiced twenty-four times, namely, one incision in one case, two incisions in eight cases, three in nine, and four in six. In eleven cases the incisions were sutured after labor, seven uniting down to the edge of the external os by first intention. The indications for incisions were: prolapse of cord, three cases; eclampsia, three; dangers threatening fetus, seventeen; cancer of the portio, one. Delivery was completed by symphysiotomy and forceps in three cases, by the forceps alone, fourteen; by turning and extraction, five, and by perforation and cranioclasty in two. The presentation was: vertex, twenty-one; face, one; brow, one, and transverse, one. The pelvis was capacious in nine cases, and contracted more or less in fifteen. In three cases the incisions were enlarged by laceration, in three they bled severely, the hemorrhage required the tampon in one of these cases, and was checked by suture in the others. In several cases median incisions were made into the vagina and perineum. Of the children, fourteen were born active, and eight in suspended animation (six saved), whilst the remaining two were the cranioclasty cases. The puerperium was normal in seventeen of the patients; in three there was a slight rise of temperature, in two parametritis, in one mastitis, and in one endometritis, salpingitis, peritonitis and fatal sepsis. This patient was mentally afflicted and very uncleanly; there was strong evidence that the artificial incisions were not the channels of infection.

—Centralbl. f. Gynak.

SERUMTHERAPY IN PUERPERAL SEPTICEMIA.

Wallich concludes an important report, as follows: (1) From an experimental point of view, employing Marmorek serum on animals inoculated (in their blood) with streptococci derived from puerperal infection, Wallich has not obtained regularly either preventive or curative results, especially with the serum used on women in 1896. (2) From a clinical aspect, Wallich fails to find sufficient modification in septicemia morbidity and mortality in the Baudelocque clinic in 1896 to justify any definite conclusion. Marmorek serum was there employed most methodically. A much longer experience is required. The value of preventive serumptherapy is absolutely unknown. Therefore intra-uterine treatment, which has been well tried, must not be cast aside in favor of curative serumtherapy by antistreptococcic serum. The bacteriologic diagnosis of puerperal infection is as yet hard to make in any clinical fashion.

—Aunales de Gynecologic et d' Obstetrique.

NOTICE.

An Army Medical Board will be in session at Washington City, D. C., during the month of May for the examination of candidates for appointment to the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War before April 15, 1898, for the necessary invitation, giving the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal acquaintance, from at least two reputable persons, as to his citizenship, character and habits. The candidate must be between 22 and 29 years of age and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the Board.

Successful candidates at the coming examination will be given a course of instruction at the next session of the Army Medical School, beginning in November, 1898.

Further information regarding the examinations may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

GEO. M. STERNBERG,
Surgeon General, U. S. Army.

To illustrate the general character of written questions submitted to candidates under examination, a few examples from the records of an Army Medical Board recently convened are hereto appended.

EXAMPLES OF WRITTEN QUESTIONS.

ARITHEMTIC.

1. Divide 15 by 1-15. Multiply quotient by 1-45, and subtract 25-42 from the product.

2. Multiply .009 by 90. Divide .009 by 90.

3. A garrison of 450 soldiers have rations for five months only. How many should be detached to make the rations last nine months?

4. Give the metric equivalent of 3 grains; 3 fluiddrachms; 3 pounds; 3 quarts; 3 yards.

5. Name and describe briefly four principal kinds of triangles.

6. Which is the larger and by how much, a box 10x8x6 feet or a cube of 8 feet.

GEOGRAPHY.

1. Bound the State of Tennessee. What are its principal rivers? Name its capital and its largest cities.

2. Through what States does the Appalachian chain of mountains extend? What and where are the highest elevations?

3. In going from Duluth to Quebec by water, through what lakes and river and canals, and by what States would you pass?

4. What rivers form the principal drainage system of the United States and into what bodies of water do they flow?

5. What countries border on the Mediterranean Sea?

6. Where is India? How is it governed? Name its principal rivers and cities.

HISTORY AND LITERATURE.

1. Who was Julius Caesar? When, approximately, did he live? For what was he distinguished?

2. What was Queen Elizabeth's claim to the throne of England? About when did she live? Mention the most important events and writers of her reign.

3. What nations made the earliest settlements in North America, and where were they located?

4. What were the more important incidents in the career of Benjamin Franklin? When, approximately, did he live?

5. What historians has the United States produced? Mention at least one work of each.

6. Who were the authors of the following works: Don Quixote? Faust? Les Miserables? The Inferno? Childe Harold's Pilgrimage? Paradise Lost? Evangeline? Scarlet Letter? The Autocrat of the Breakfast Table? The Spy? Legend of Sleepy Hollow?

CHEMISTRY.

1. How may hydrogen be obtained? State its color and odor, and its weight as compared with an equal volume of atmospheric air under similar conditions. What is meant by "similar conditions" in the last sentence?

2. How would you obtain a jarful of carbon dioxid for experimental purposes? How would you recognize that the jar contained carbon dioxid? What is its chemical formula?—its molecular weight?

3. What is that which is known popularly under the name of "laughing gas?" What is its formula? How is it prepared?

4. What is an anhydrid? Give the names and chemical formulas of two anhydrids?

5. How is sal ammoniac prepared commercially?

6. What chemical action takes place when copper turnings are heated with sulphuric acid?

7. What are the principal ores of zinc? What is the formula for zinc chloride? for zinc sulphate?

8. What is glycerin chemically?

9. Explain the chemical action which takes place when gunpowder is exploded.

PHYSICS.

1. Does a given body weigh more near the poles of the earth or near the equator? Give an explanation of the fact.

2. Explain the principle of the hydraulic press.

3. What is meant by a compensating pendulum?

4. What is the dew point? How may it be determined?

5. What are the dark lines of the solar spectrum occasioned by?

6. An observer saw the flash of an explosion, and ten seconds later the sound reached his ears. What was his distance approximately from the locality of the explosion?

7. Describe a cell of an electric battery.

ANATOMY.

1. Describe the origin, insertion and action of the several muscles attached to the scapula.

2. Describe the origin, course, branches, distribution and relations to other organs of the nerves of the arm and forearm.

3. Describe the anatomy of the palm of the hand.

4. Describe the origin, course, branches, distribution and relation to other organs of the internal pudic artery.

5. Describe the anatomy of the ankle joint.

PHYSIOLOGY.

1. Tell what you know about the cerebral localization of the functions of motion, and locate some of the so-called motor areas.

2. What are the functions of the thyroid gland and the consequences of its removal?

3. What is the composition of atmospheric air and of expired air?

4. Give a list and a short description of some of the animal albuminoids.

5. What is urea? What is the normal quantity in proportion to body weight? How is it estimated?

SURGERY.

1. Give in detail the preparatory and several following steps of a so-called aseptic surgical operation.

2. What is the nature and origin of pus? What is sepsis and also antisepsis?

3. Describe Chopart's amputation through the foot, with diagram.

4. Give the points of diagnostic differentiation in cases of lupus ulceration, syphilitic ulceration and epitheliomatous ulceration.

5. Describe the different methods of procedure for the reduction of luxations of the head of the femur.

HYGIENE.

1. What is the normal amount of CO_2 in the atmosphere; how much of this gas is considered admissible in inhabited apartments, and how is the amount determined?

2. What amount of cubic-air space per bed would you consider a suitable allowance in a hospital ward?

3. What substances in well or river water indicate, by their presence, contamination from excreta or other organic matter of animal origin?

4. How is the hardness of water estimated, and to what is it due?

5. What are the constituent alimentary substances in milk, and how

does cow's milk differ from human milk?

6. What vegetable products used as food contain the largest proportion of carbo-hydrates and what the largest proportion of proteids?

7. What parasites dangerous to man may be present in the flesh of animals used as food?

8. How would you disinfect the excreta of patients sick with cholera or typhoid fever?

PATHOLOGY AND BACTERIOLOGY.

1. What are the different stages of exudative inflammation and what the products of such inflammation?

2. What are the causes of thrombosis, what the composition and varieties of thrombi, and what changes may they undergo?

3. What pathological changes are found in the spinal cord in posterior spinal sclerosis?

4. What changes occur in the liver as a result of chronic interstitial hepatitis?

5. What bacteria are commonly found attached to the diseased valves in mycotic endocarditis?

6. What are the morphological and biological characters of the bacillus of diphtheria, and what are the evidences of its etiological relation to this disease?

THERAPEUTICS, MATERIA MEDICA, TOXICOLOGY.

1. By what various agents may antipyresis be produced? Give an example of each class of antipyretics and state how it acts.

2. In a case of typical acute pleurisy state the indications for treatment in its several stages and how you would meet them.

3. What is salol? Give its physiological action and therapeutic uses.

4. Give the source and therapeutic uses of cocaine, the dose in each case, and its dangerous effects.

5. With what condition is poisoning from opium most likely to be confounded? How would you make a diagnosis and how treat such a case?

6. What are the poisonous effects of the lead salts? How is their presence detected? State briefly your plan of treatment.

PRACTICE OF MEDICINE.

1. Give an account of the etiology, symptoms, physical signs and differential diagnosis of lobular pneumonia.

2. Give an account of the etiology, physical signs and treatment of empyema.

3. Give an account of the etiology, symptoms, differential diagnosis and treatment of dilatation of the stomach.

4. What are the causes and symptoms of intestinal obstruction and what is the treatment?

5. What are the causes and results of mitral stenosis and how would you recognize this condition?

6. Give the differential diagnosis between small-pox and measles.

OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

1. Describe briefly the usual mechanism of a breech presentation; what dangers are to be guarded against and what difficulties to be met?

2. Under what circumstances is premature delivery demanded, and how would you perform it?

3. What symptoms would lead you to suspect the presence of a uterine fibroid? State how an exact diagnosis can be made in such cases.

4. What measures preventive or remedial would you use in a case of puerperal convulsions?

5. What early symptoms indicate probable onset of the chief eruptive fevers in children? In which does temperature range highest, which has the shortest period of incubation, of invasion, or eruption?

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Miscellany.

MEETING OF AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.

The fifth annual meeting of the American Medical Publishers' Association will be held in Denver on Monday, June 6, 1898, the day preceding the meeting of the American Medical Association. Editors and publishers, as well as every one interested in medical journalism, cordially invited to attend and participate in the deliberations. Several very excellent papers are already assured, but more are desired. In order to secure a place on the programme, contributors should send titles of their papers at once to the secretary, Charles Wood Fassett, St. Joseph, Mo.

The Japanese minister to the United States was instructed weeks ago to obtain the best artificial limb in this country for Count Okuma, and he turned the order over to the Secretary of the Legation, who instructed Consul-General Ucheida to consummate the negotiations. The latter gave an order to the firm of A. A. Marks, 701 Broadway, N. Y.

This is the second wooden leg that the prime minister has purchased in this country, and the fact appears to be a refutation of the political "roorback" that Japan is interfering with our commerce and manufactures. In 1890 a Japanese fanatic, Hunekt Karushima, threw a bomb into the foreign office, where Count Okuma was at work, and he lost his right nether limb. A local cabinetmaker of high degree furnished him an artificial limb that was finely lacquered and inlaid with mother-of-pearl, but which had not the grace and comfort of the Yankee invention. So when Count Okuma came to this country, in 1894, he purchased a leg of American make, and left the other behind. Several months ago Count Okuma had his Yankee leg shattered in a runaway accident, the cabinetmaker was sent for again, and another lacquered and mother-of-pearl leg was furnished the Prime Minister until he could get a new leg from A. A. Marks, 5200 miles away. The Count is to get it in about a month. This most excellent firm above is not only the oldest of importance in America, but for many years their workmanship has been sought from Europe, Asia and Africa.

—The North American Medical Review.

INCARCERATED RETROPERITONEAL HERNIA.

Schultze (Deut. Zeit. fur. Chir., Band xliv Heft 3 u. 4) reports an interesting case of retroperitoneal hernia which simulated in a marked manner incarcerated inguinal hernia.

The patient, when first seen, had a marked swelling in the inguinoscrotal region and symptoms of intestinal occlusion. The swelling, however, disappeared to a great extent upon the application of cold. There persisted, however, a swelling in the inguinal lymphatic glands of the right side which were not present on the left. The persistence of the symptoms of obstruction with the presence of these glands, as formerly noted by Rose, led the author to a diagnosis of an internal incarcerated hernia on the right side. There was a marked induration at a point just above Poupart's ligament about its middle. This and the presence of vomiting, distention of the abdomen and absence of stools led the author to operate. The operation disclosed a retroperitoneal pocket with a sharp upper edge, which was about the size of a walnut; it was filled by a knuckle of small intestine. The intestine was distended above and flattened below, while the strangulated portion was markedly discolored, but not sufficiently so to necessitate resection. The recovery was complete, though retarded by slight suppuration about the catgut sutures.

THE UNION OF REIMPLANTED BONE BUTTONS AFTER TREPHINING.

By a carefully conducted series of experiments David (Archiv. fur klin. Chir.,1896, Band liii,Heft 4) has proved that the buttons of bone which have been entirely removed from the skull unite when reimplanted under aseptic conditions in a manner analogous to the reparative action seen in other tissues, and that there is neither an entire new formation of bone nor any necrosis of the implanted fragment.

These results were obtained by operating upon a series of dogs which were killed at regular intervals of one week, from four days to 14 weeks after the operations had been performed. He thus secured a series of histological specimens which clearly demonstrated the fact related and that the process of repair was a normal aseptic union between the fragment of bone and the remainder of the skull, and that there was no absorption or necrosis of the fragment, but that it remained intact and became united to the other bone.

Dr. Nicholas Senn, of Chicago, was lately taken to Galena, in care of a Sheriff, to answer to the charge of contempt of Court. As it turned out that his evidence was immaterial to the case, where he refused to appear, and as the Judge found he was a very busy man, having much more important duties than the neglected one pressing upon him, he was forgiven by the Court.

N. Y. Med. Rec.

A SAFE ANTI-RHEUMATIC.

Safety and efficiency are qualities not combined in the anti-rheumatics heretofore in use. While no one questions the efficacy of salicylic acid and its salts in rheumatic affections, every one recognizes the difficulty of employing it in certain cases owing to its irritating effects upon the stomach, its tendency to produce unpleasant and even serious disturbances of the nervous system and its weakening effects upon the heart. As recently pointed out by Dr. Baque in an inaugural dissertation (Paris, 1897), salophen exerts an incontestably favorable influence in acute and subacute articular rheumatism, while possessing the great advantage over sodium salicylate of being devoid of all unpleasant after-effects such as headaches vertigo, and tinnitus aurium. As salophen is decomposed in the intestine, it does not provoke gastric disturbances—another advantage over the salicylate. It also possesses a marked analgesic action, and therefore is entitled to a prominent position in the treatment of the various algias, cephalalgia, migraine, sciatica, etc. It also appears to have a beneficial influence in various cutaneous affections, especially those attended with pruritus. Finally, Baque concludes his enumeration of the many desirable qualities of salophen with the statement that owing to its freedom from taste and odor it can be readily administered—a quality that deserves the more consideration since in many rheumatic cases the existing gastric disturbances render it very difficult to administer other remedies.

GLYCERINE IN AFFECTIONS OF THE STOMACH.

Some years ago Dr. Sydney Ringer recommended the administration of glycerine by the mouth in certain affections of the stomach. Acting upon his suggestion, Sir James Sawyer has since treated many cases of painful gastric digestion such as are usually attributed to subacute or chronic catarrh of the gastric mucous membrane, with glycerine, and with satisfactory results. He gives one drachm, a drachm and a half and sometimes even two drachms, with a little of some simple stomachic tincture, diluted to an ounce with water, thrice daily, between meals.

—Ex.

The Obstetrical Society of Cincinnati at its annual election chose the following officers: President, Dr. E. S. McKee; vice president, Dr. W. D. Porter; recording secretary, Dr. William Gillespie; corresponding secretary, Dr. M. A. Tate; treasurer, Dr. George E. Jones; librarian, Dr. Bonnisfield.

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Original

A CASE OF ACUTE MASTOIDITIS WITH LOBAR PNEUMONIA, FOLLOWED BY LATERAL SINUS THROMBOSIS AND PYEMIA —RECOVERY WITHOUT OPERATION.

BY FRANK S. PARSONS, M. D., BOSTON, MASS.
Editor of "Medical Times and Register."

The subject of the following sketch was found in the person of J. E., a boy 7 1-2 years of age. His previous physical history had been that of a delicate, strumous child of nervous temperament. His father, a sea-faring man, was somewhat advanced in life, and his mother was an invalid from a train of nervous symptoms when the boy was born. No specific family history is obtainable, which fact may not preclude the possibility of its existence. At about the age of 3 years there occurred an attack of cervical adenitis, of which landmarks remain at the present time. Numerous attacks of acute tonsillitis have contributed to glandular enlargement of that region, and the presence of adenoid growths in the naso-pharynx is suggested by the character of the boy's breathing.

Early in 1896, when about the age of 6 years, he first experienced a pain in the right ear, which lasted for a couple of days, but which passed off without discharge of any kind.

In November of the same year the boy had an attack of whooping cough, at which time he first came under my observation. The disease ran a mild, but somewhat protracted, course without complication. Subsequent to this, in April of 1897, he contracted measles, during the epidemic then raging, from which he also recovered without complication; but during the latter part of May, about six weeks from the attack of measles, while in New London, Conn., he suffered from an acute inflammation of the left tympanum, which caused suppuration for about a week. No further trouble was experienced until the latter part of last November, when he came to my office, again complaining of suppuration in the left ear and a mild tonsillitis. Examination revealed a perforation of the left drum, but very little pus. The tonsils were consid-

Read before the Norfolk District, Massachusetts Medical Society, February 22, 1898.

erably enlarged, causing an irritating cough, but physical exploration of the chest gave negative results. The ear was washed out with 1-5000 warm bichloride solution, and the tonsils painted with a mixture of one-third Churchill's iodine to two-thirds glycerine. He was directed to report in two days. At this point it may be well to state that the boy presented an anemic condition, was rather overgrown for his years, tall and thin, the flesh cold and flabby and the appetite capricious.

On the second visit the suppuration from the left ear had ceased and the tonsillar enlargement somewhat diminished. However he still complained of a dry cough and chilly sensations. No enlargement or tenderness behind the left ear and no mention of trouble with the right. I again painted the throat and treated a slight nasal catarrh which the child had. I also gave a gargle of chlorate of potash and guaiac in glycerine, to allay the irritability of the pharynx, with directions to report in three days.

Saturday, November 27, being a stormy day, the child's mother telephoned me that she would not send him to the office, because he did not seem well, but she thought that she would wait until the next day before asking me to call, "as he might be better in the morning." She did not, however, telephone for me until Monday, the 29th.

On my arrival I found the patient in bed with a temperature of 104 degrees Fahr., pulse 130, respiration 40; was told that he had had a sharp chill on Friday previous. He complained of pain over the right nipple and of stiffness in the back of the neck. He was peevish and restless and had herpes labialis. No swelling at this time in the muscles of the neck, or tenderness in either ear. Percussion gave slight dullness over the middle lobe of the right lung. Auscultation revealed subcrepitant rales in the same locality, bronchial breathing on the affected side, with the left lung normal. Diagnosis lobar pneumonia somewhat advanced, probably about the third day. Patient would not expectorate, hence I could not get the symptom of rusty sputa. I placed him on appropriate treatment for the condition present and awaited the crisis day. The temperature for the next two days remained high, ranging between 102 and 104 degrees, without chills, and the respiration about 40, quite typical of pneumonia.

Wednesday, December 1, the temperature had dropped to normal during the night, with mild perspiration. The pulse is at 85 and the respiration at 24. Signs of resolution in the affected lung by physical exploration. This seemed to be the fifth day of the pneumonic process so far as could be determined by Friday's chill. Patient complained of pain in the right ear for the first time, and a fly blister was applied over the mastoid. He also again complained of stiffness in the neck.

December 2.—Patient passed a comfortable night and temperature remains normal. Cough is loose and lung is rapidly clearing up. Blister has been removed from the mastoid and dressed with oil. Some stiffness of the sternocleidomastoideus muscle, which seems tender to the touch at its mastoid insertion. Some puffiness of the integument just posterior to the process on right side of the head. Left ear apparently not abnormal. Ice was applied over the right mastoid. About 4 P. M. a sharp chill occurred, followed by a rise of temperature to 105 degrees. Examination at this hour reveals more tenderness posterior to the mastoid and slight oedematous swelling over the region of the emissary vein and posterior cervical triangle. I diagnosed mastoid abscess and desired consultation, stating that I thought the mastoid should be opened. Accordingly Dr. George A. Leland, of Boston, saw the case with me at 8 P. M., and concurred in the opinion that there was pus in the mastoid cavity, and that an operation for its removal was necessary, if not imperative. He further stated that the evident phlebitis of the emissary vein indicated occlusion of that vessel, which pointed to a thrombus of the lateral sinus, into which the emissary vein empties. From the further development of the

case this opinion seems well founded. The symptoms did not point to haste as to operation, and as the boy's mother was opposed to it we determined not to urge the matter until there was further evidence of its necessity. Miss K. I. Doyle, a professional nurse, was engaged, who is entitled to credit for the favorable outcome of the case, as her untiring efforts and skill through night and day contributed not a little toward saving the boy's life.

For treatment the patient was given two grains of acetanilid whenever the temperature mounted to over 103 degrees; a tonic mixture of coca kola and strychnia four times a day; tinct.digitalis to support cardiac action in small doses, and an ice bag on the head. Brandy was withheld for the first few days in anticipation of a possible meningitis. Kidney action had been sluggish for a day past, but responded to a dose of nitre. The urine was cloudy, dark in color, but no albumen.

December 3.—Patient had a restless night and complained of pain in the occipital region of the head. Continued difficulty in passing urine, which has been suppressed for 15 hours, when about ten ounces are voided. Constipation was present, for which one-tenth grain calomel tablets were given until the bowels operated. A movement was obtained, which was not large, and of normal appearance. Patient passed a quiet day, with the temperature at about 100 until 6 P. M., when it mounted to 104 with a chill, increased restlessness and pain in the head. Acetanilid did not affect the temperature, which at 7 o'clock had risen another point. The pulse also rose to 148 and became weak. At 9 the situation seemed more alarming and I was sent for. Placed the boy in a cool pack and gave an increased dose of strychnia and digitalis. Temperature and pulse rapidly fell and registered 99.2 and 100 respectively at 1 A. M. He perspired freely, had a large movement from the bowels at 1.30, and slept most of the night. A copious discharge from the left ear. The right ear still discharges, but not so freely. Both were irrigated twice a day. The swelling over the mastoid has slightly increased.

December 4.—As it was evident that pus absorption was going on and pyemia rapidly developing, I urged immediate decision in favor of operation. Further consultation being requested prior to such an important step. Dr. J. Orne Green was summoned with Dr. Leland. Both gentlemen agreed concerning the advisability of immediate operation and thought that the symptoms made such a course imperative. At the mother's request the decision was further delayed until morning, she being unwilling to give her consent without longer consideration. Patient passed a comfortable day, but complained of pain in the right knee whenever that leg was moved. Although embolism was expected to appear in some portion of the body there was no swelling or visible symptom of that affection in the right knee, and it is probable the pain was of neuralgic origin. Temperature rose to 105.2 at 6 P. M., but gradually diminished under the influence of the wet pack. Patient sleepless and complained much of knee pain.

December 5.—Was informed this morning the mother would not consent to an operation, she preferring to risk the one chance the boy might have without it. I told her that while I was willing to exert every effort to save the child's life she must excuse me from any blame if the case went against us. I now added to the treatment three one-sixteenth grain tablets a day of biniodide of mercury as an antiseptic; forced feeding, which fortunately was well tolerated, and consisted of milk, beef juice and white of egg at frequent intervals. Patient rested well during the forenoon, but seemed drowsy and stupid, with irregular pulse and cold extremities during the afternoon. Digitalis was increased and brandy given, which materially improved his condition. At 6 P. M. he had a chill and temperature rise to 105 degrees. A sponge bath reduced it to 103, but at 8 o'clock another chill announced a rise of temperature to 105.6. Pulse rapid, but good. Acetanilid reduced

the fever to 101.6 in one hour, and the patient slept until 1 A. M.

December 6.—As this day marked the greatest variations of temperature during the course of the pyemia —variations which reached an extreme of over nine degrees and extended to a dangerously subnormal point—I will quote the hourly record kept by the nurse. Referring to the high temperature of the evening previous, which at 8 P. M. registered the highest during the disease, 105.6 degrees, we have by contrast the following: 1 A. M., 97.8; 2 A. M., 97; 3 A. M.. 96.5; 4 A. M., 96.2; an extreme range of 9.4 degrees, after which the temperature gradually rose to normal toward 6 P. M. During this period of low temperature the patient perspired profusely, the skin was cold and clammy, pulse weak and irregular, between 85 and 90 to the minute, extreme pallor of face and cold breath. He was treated with strychnia, digitalis and brandy, hot water bottles and brisk rubbing to the extremities. Slept soundly, rather was somewhat stupid through the spell. Pain in right knee suddenly disappeared afterward. Swelling and pain over mastoid has extended down along the jugular, suggesting phlebitis of that vein. At 8 A. M. the temperature had again risen to 104 degrees, reacted to 103 at 9 o'clock and at 10 had reached 105, preceded by a sharp chill. Acetanilid was here given with cardiac stimulants. Pulse 120, showing the effect of the stimulants. At 11.30 A. M. the temperature decline had reached normal, an hour and a half later it was a point less, at 2 P. M. 96, and 3 P. M. 95.5. Another extreme range of 9.5 degrees. Pulse about 84. Brandy was now given freely, and general condition fairly good. The temperature remained below 97 until 8 P. M., when it steadily rose to 103.8 at 11 P. M. At 10.45 patient vomited and complained of dizziness. Had a staring expression to eyes. Brandy was reduced, as there was evidence that the vomiting was due to overdosing with alcohol rather than a commencing meningitis. Pulse again became weak, poor in volume, irregular and rapid after midnight. Patient complained of great thirst.

December 7.—No further important subnormal temperature. Patient takes nourishment well; principally milk and occasionally beef juice. He is now put on a drachm of bovinine every two or three hours in milk. This is a preparation with which I have had undoubted success in many cases of suppurative diseases, and, I believe, in conjunction with brandy and milk, contributed not a little to the successful issue in this instance.

December 9.—Patient has passed the preceding two days without any excessive rise or variations in temperature. The chills have been only occasional and the fever no more than 102 to 103 degrees. Pulse, however, has become more rapid, and somewhat irregular. At 9 P. M. there occurred a chill and rise of temperature to 105, which was reduced by acetanilid to 97.6 at 2.30 P. M.

December 13.—No symptom of note for the past four days except repeated chills and minor temperature elevations. Digestive functions continue good. Pulse rather frequent and occasionally weak, but responds well to stimuli. Quite a severe headache has been complained of since yesterday. Temperature at 4 P. M. 104, but did not remain high long. Copious discharge from left ear. Right ear discharge very slight. General condition good.

December 21.—For the past week the patient has steadily progressed toward recovery. To-day he sat up a short time. Swelling along the jugular has subsided and in place of the swelling over the emissary vein can be felt a firm, tortuous, thread-like lump, movable with the integument, which is probably the remains of the thrombosed vein. At least such a theory seems plausible. Convalescence was not further interrupted.

February 15.—At the date of writing this paper the patient is running about quite as well as at any time prior to last November; in fact, he remains a delicate boy. Hearing was, at last examination, not entirely lost, being seven inches on the right side and 13 on the left for the ticking of a watch.

It would seem a waste of time to

dilate on the importance of early operation in mastoid disease, and while this case recovered, it is by no means intended to convey the idea that we are warranted in advising delay in evacuating pus from the mastoid cavity. The outcome of this was extremely fortunate for the boy, but should be considered rather as an anomaly than a guide for future experience. It is said that Politzer, in his lectures on the temporal bone, remarks that it is bounded by four sides. "One of these is life, for by it we communicate with the outside world. The other three are death, for through these may disease from the ear attack the brain itself, one of its venous sinuses, or the great vessels of the neck." How important, therefore, is the surgical treatment of abscess in this vicinity. Dr. Ellett, of Tennessee, in the Atlanta Medical and Surgical Journal of January, 1898, writing on mastoid disease, states: "I know cases go to a point where pus formation has occurred, or seems to have, and recover by absorption (?), but these should be classed as the curiosities of medicine."

A word as to Wilde's incision, often used in these cases of mastoid disease, which consists in cutting down through the integument and periosteal layer behind the ear. If the pus has burrowed through to the periosteal covering such a procedure will relieve the pain and evacuate the abscess, but it can hardly be relied upon for more than palliative measures, or the first step toward further operative interference. If pus be present on the surface of the mastoid there is small chance that it was formed there. In most cases it has burrowed out from the attic or antrum along the canal, or from the mastoid cells through a fistulous cortex.

Dr. George A. Leland reports two very interesting cases of this disease in the "Transactions of the American Otological Society, 1897." Both of his cases were operated upon, and in both the early symptoms were very similar to my case. One died and one recovered. In the autopsy it was found that abscess existed in the jugular vein and the sinus was occluded by a firm, dense thrombus, with no evidence of pus in it. Streptococci were found in the lateral sinus. In the other recovery was due to the opening up of an abscess of the jugular and clearing out all foci of infection.

In face of these facts it seems quite a formidable proposition to state that a case of mastoiditis should be followed by lateral sinus thrombosis and recovery take place by absorption of the pus, but such certainly seems warranted by the history of this case, if the symptoms have been rightly interpreted, and there seems to be no reasonable doubt that the construction upon them is correct.

DISCUSSION.

OPENED BY GEO. A. LELAND, M. D., BOSTON.

It will probably be granted by those who have heard Dr. Parsons' most excellent paper that under the modest title of a sketch he has depicted a most remarkable case of otitic pyemia. The subject of the sketch should, looking at it from a human standpoint, be dead, and we can only say that it is by the intervention of Divine Providence that he is not now studying the early vernal development of the grass roots from the under side.

That a child of his physique and previous history should have been able to overcome such an attack seems almost incredible; but that he lives is a fact, and we in our search after the causes of things naturally inquire why he does live. It is doubtless true that he has escaped death by septic intoxication, as it sometimes manifests itself in disintegration of the lungs from purulent embolism or in fatty degeneration of the vital organs, which we are

wont to speak of as heart failure or exhaustion.

It may be interesting to briefly review some of the salient points suggested by this case of mastoiditis and its further extension. As a rule, it is probably the experience of us all, as it certainly is of most aurists, that, as stated by Jansen, purulent disease of the mastoid, especially that known as cholesteatoma, takes place commonly without rise of temperature. This is also the case even in very great degrees of empyema of the mastoid, and even, in adults, with extra-dural abscess. He further states that in acute inflammations of the mastoid, we frequently have fever at the beginning, and that afterwards when phlebitis of the sinus begins we have a second onset of fever after the first one has disappeared. The first fever is without chills, but the second is accompanied by frequent rigors with remittent fever, so that sometimes it is a fatal mistake to wait for fever in inflammations of the mastoid before operating. It seems to be the consensus of opinion among European authorities, and American as well, that the onset of the fever means an extension of the disease outside of the bone itself. I have often been called upon to speak on this point at the hospital in cases where the diagnosis has been doubted, when there was no rise of temperature, even though all of the other symptoms of swelling, tenderness, and even edema were present in the mastoid region, the history also aiding the diagnosis.

Now, as a rule, infection from the mastoid invades the general system in three ways, whether it be by micro-organisms or their toxins, accompanied or not by purulent matter. First, by direct extension. In these cases there may or may not be a thinning of the bone, or even a dehiscence between the mastoid and either the middle or posterior cerebral fossae. This dehiscence may become a direct channel for the infection of the lateral sinus; and in these cases we have the true lateral sinus thrombosis. The cases reported and explained by MacEwen show an infection through the bone of the groove and then of the sinus wall itself, producing thickening which in its first stage causes a loss of the contiguous endothelium, thus furnishing a spot for the deposit of the fibrinous clot. This may grow until a complete thrombus is present entirely enclosing the infected area, or it may be limited so that we only have a partial thrombus clinging to the outer wall of the vein at this spot extending above and below, or extending around the vein, diminishing its lumen, but not completely occluding it. For example, Leutert reports a case where the symptoms without doubt pointed to sinus thrombosis. On exposing the sinus it was found soft and pulsating, the surface roughened with fibrino-purulent shreds. The needle of a Pravaz syringe was introduced and blood aspirated; the vessel was found apparently clear. The patient died of gradual exhaustion with fatty degeneration of the heart walls (pyemic), and at the autopsy there was found a thin thrombus adherent to the wall of the sinus, but not occluding it.

There was also a case operated upon at the City Hospital, contagious department, in which the symptoms were equally conclusive of lateral sinus thrombosis, where, on exposing the sinus it appeared normal. I withdrew a couple of drachms of fluid from the lateral sinus by means of an aspirator, and proceeded no further on the sinus itself. The pathological department found the blood thus removed to contain the streptococcus in large quantities. Here the conclusion is that there was either an incomplete thrombus somewhere in the sinus, or that the micro-organisms invaded it from the bone itself through an osteo-phlebitis to be spoken of in a moment. This case also made a good recovery.

The second method of infection is through what has been called by Koerner an oesteo-phlebitis; that is to say, the small veins of the bone become thrombosed and the thrombus of the lateral sinus is formed by extension of these minute thrombi through the bone itself; or, which is more common perhaps, a pyemia is set up by passage of the infection

from these small veins into the blood stream of the sinus itself.

Koerner undertakes to differentiate between these two kinds of pyemia, saying that emboli are more frequently detached from the first kind of thrombus of the lateral sinus than from the thrombi of the small veins. He says further that in cases of thrombosis of the lateral sinus the emboli are larger and therefore more apt to invade the lungs, producing infarctions, which are the beginning of more or less numerous abscesses, followed even by gangrene of the lung; and that while emboli from the small veins of the bone, that is, from an osteo-phlebitis, are very minute, consisting of micro-organisms, and therefore not apt to be caught up by the lungs, they give evidence of infection of the abdominal vicera, muscles and joints.

Illustrative of this point is also Leutert's case of lateral sinus thrombosis, mentioned above, where the ear was affected, but attention had not been called to it. The patient was treated in the medical part of the hospital for acute articular rheumatism for two weeks before the diagnosis was made that there was involvement of the lateral sinus. Hence, it was thought that the rheumatic disease was produced by minute emboli thrown off from the sinus disease and therefore was pyemic.

In this case of Dr. Parsons the pneumonia will be thought of as possibly embolic, but from the fact of its preceding the aural affection by so long a time, and that it involved one lobe so distinctly, and was evidently a straight lobar pneumonia, we must probably not consider that it was of pyemic origin, cases of pyemic pneumonia being much more frequently lobular and producing so much disturbance, probably ending in abscess or gangrene of the lung.

Jansen and MacEwen, the result of whose operative procedures have been exceptionally brilliant, say that it is not well to wait until the diagnosis has been so finely made, since such delay may be fatal, and that such curiosity had better be curbed until the autopsy table is reached. Both of these authorities, Jansen and MacEwen, rightly say that the operation should be done as soon as the diagnosis of mastoiditis is made in order to remove the source of infection, not delaying to follow Koerner's receipt.

The third method of the extension of the infection from the mastoid process is through the lymph channels. It is doubtless a fact that the leucocytosis of the lymph, shown in its glands especially, is inimical to bacterial infection, and, hence, we have glandular activity and induration and a cellulitis in the course of the lymph channels proceeding from the source of infection. This method of infection probably gives us those cases of peri-phlebitis which are sometimes seen, and it is very likely the fact that Dr. Parsons' case was after all a case of peri-phlebitis, the lymph channels on the way from the mastoid downward toward the heart taking up the toxic matter and producing the symptoms of swelling, tenderness, chills, remittent fever, vomiting, etc., which have been so accurately detailed—a very small quantity probably invading the blood stream.

Several years ago Dr. J. Orne Greene reported a case of peri-phlebitis of the jugular, extending from mastoid disease, in which Dr. Gay opened the jugular sheath. The jugular vein itself was intact, but there were a few drops of pus within the sheath of the vessels. The case made a good recovery.

Two or three years ago I had a similar case at the City Hospital, where, after mastoid operation, the swelling continued to go down the neck, and chills and fever were as marked as in the case reported this evening. The lateral sinus was exposed at the operation and found to be instact, and I used my utmost endeavors to get the surgeon associated with me to expose the sheath of the vessels. He hesitated very much and finally decided not to do so, preferring to wait until the symptoms became grave enough to make operation imperative. This case made a complete recovery also, although not a rapid one—the rule in peri-phlebi-

tis if the vein itself does not become involved.

We have therefore these three methods of infection to think of in cases of febrile disturbance following mastoid disease, and it is imperative when febrile conditions are present that these grave complications should be borne in mind; and it is well to repeat that the consensus of opinion among the best authorities is that operation should not be delayed. And while we may have some such fortunate outcome, as in this case of Dr. Parsons, we must look upon it as one of the rarest, while one of the best results after neglect of operative interference. We who have heard the excellent report of this case cannot fail to be of the opinion that the patient descended as near to death's door as it is possible without its opening before him, and I am sure we would not like to expose our patients to any such risk because of sentimental reasons for not wishing to operate.

The results of operative interference in these cases are becoming more and more satisfactory. Ballance in his first four cases reports one recovery; Jansen has bettered these results in recent cases, as have also other German and English surgeons, notably, Jansen, Zaufal, Schwartze, Lane, MacEwen and also Ballance himself.

And now when the course of the infection is pretty well known it is probable that the modern way of operating, i. e., to pursue the pus wherever it chances to go, will bring about still better results when the aural surgeon gets bold enough to handle the great vessels as these cases certainly demand.

From the report of the case which has been presented to you this evening, and from the grave questions which have doubtless occurred in your minds and which to some small degree I have endeavored to bring before you, it will be seen that this case was very much complicated and evidently difficult of analysis. However, it emphatically shows what grave consequences may follow purulent inflammation, or even apparently simple earache, and how far from the truth it is that running ears will take care of themselves, and that the patient will outgrow them, or that they so readily get well on cessation of discharge. This cannot be too strongly impressed upon the minds of the profession as well as upon the minds of the laity. And it only goes to emphasize the fact which we have tried continually to bring out, that the family physician should be able to recognize an ear at its first involvement, and should have the conviction that an ear should be treated from its first involvement, and that he should be able to carry out this conviction to the extent of doing paracentesis of the drum-head when it becomes necessary. By this means many ears will be saved for future usefulness, and these grave complications will doubtless be largely done away with.

Editorial

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WHERE WILL IT END?

Of late progress is so rapid and startling in surgical art that we are beginning to be surprised at almost nothing. This thought was lately forced on us when the astounding news came to us—through the press of course, first—that the human stomach had been completely extirpated with the most gratifying results.

On the 6th of September Dr. Schlatter, an assistant surgeon in Zurich, removed the entire stomach, detaching it entirely from the duodenal and oesophageal ends, the patient, a toothless woman of 56 years, making a rapid and complete recovery; in four weeks after the operation gaining 13 pounds in weight. And what is most remarkable about it is that madame can digest the common aliment of every-day life with perfect facility.

The results in this case are bound to powerfully influence the future therapy of gastric disorders, and no doubt within another year we will hear of at least 100 complete gastrectomies in America alone.

Let it be once demonstrated that the lower segment of the gullet is mobile and can be readily manipulated, and the question is solved.

Why carry about a stomach functionally useless, the seat of neoplasmata, glandular or muscular atrophy, of ulceration, or other lesions, any more than a necrotic tooth, an encysted ovary, a hypertrophied uterus, or dilated gall bladder.

The success of this case necessitates the entire recasting of the views of physiologists on gastric function, and renders obsolete the greater part of their teaching on the process of digestion; for Schlatter demonstrates that neither pepsin nor hyperchloric acid is essential to alimentation.

This operation is indeed of transcendental importance and opens up new questions of great moment.

In one direction it points with greater emphasis than ever that, at the present pace of surgical advance, the existence of the medical practitioner is seriously threatened; for every day his domain is being further encroached on by the audacious operator. No wonder, then, for the late utterances of Sir Blenendell Carter, of London:

He stated that in the past 50 years the number of practitioners in Great Britain had increased 50 per cent.; that the melancholy information was published by the "Registrat-General" that the number of suicides among doctors was annually increasing. He further showed that with a higher intelligence among the masses, better hygiene and the triumph of surgery with each year, there was less and less for the practitioner to do. He instanced the fact that diseases of a chronic character, under the eye of the physician for years, were now, on a large scale, being treated by surgery. An operation, with a few weeks in a hospital, ended it. And so we find the way the finger points in gastrectomies. Chronic dyspepsia, generally of gastric origin, will soon be no more; for, with but a few more successes, probably gastrectomy will be as generally performed as hysterectomy. Modern operations for malignant diseases have very generally been successful, according to radical and total extirpation of the organs or structures involved. Partial operations on the stomach for carcinoma have been unsatisfactory, because incomplete; now, should it be proven feasible to detach entire the whole gastric diverticulum, no doubt we may soon look for a permanent cure of this dreaded malady. T. H. M.

THE PRESS AND THE DOCTOR.

The public press of late has been filled with startling reports of the discovery of alleged cures for various diseases, notably pneumonia and tuberculosis. A patient afflicted with the latter disease consumes a certain quantity of a particular serum, gains in weight, the cough diminishes, the hectic flush disappears, and the individual is declared to be positively cured. The doctor in attendance a "reputable" physician, who is always loth to have his name published, and yet it is published with street and number, declares a child-like confidence in the merits of the new remedy, and is soon to publish the result of his investigations in this particular line of inquiry.

Now, all this would be most amusing if it was not deplorably culpable not to say absolutely criminal. The physician knows that it is not one, or two, or a dozen cases that will irrevocably prove the curative properties of any agency. He is well aware that many cases of tuberculosis recover without any particular line of medication, and that many cases die despite any and all treatment. But so well developed are the keenness of competition and the spirit of commercial enterprise in many "reputable" physicians that every avenue is followed that leads to public advertising, while apparently practicing under the aegis of a great profession.

Self assertion can make a fortune in medicine as well as in finance, but the honor of the profession should not be permitted to be scorched by the efforts of "reputable" doctors to produce personal laudation. J. J. M.

THE DOCTOR'S BELIEF.

A frequent charge brought against the medical profession is that as a body we are fast merging into a condition of materialism. The brilliant illumination which science has spread over the researches and investigations of the past decade has had a tendency to develop upon the part of the scientific investigator a recognition to regard as absolutely

non-existent what does not come within the circumscribed limitations of the microscopical field, or that cannot be found beneath the dissecting scalpel. Yet there is no man who does more and with less hope of absolute compensation than the physician in striving to fulfill the great ordinance, "To love thy neighbor as thyself." The doctor does this not as a religious precept, but simply as a matter of course in the daily routine of active professional life. Religion includes something higher and more spiritual than the acknowledgement and practice of this precept, however worthy its fulfillment may be. There is our duty to God, our faith in the things unseen and undemonstrable, our reverence for things eternal, and our belief in a future existence. And while these are not so patent to our success they are as irrevocably fixed in the belief of the religious man as the stars of the heavens are in the astronomer's eyes.

The great difficulty lies in the physician striving to estimate all things upon the basis of individual experience. He sees so many promises fail, reads so much that proves to be rubbish and hears so many false assertions that he is liable to have his convictions only upon what he himself sees or knows, and this develops a cynicism which, like a malignant growth, eats into the moral fibre, deadens the higher impulses and deprives him of half the joy of living.

We do not wish to sermonize, but we say with all emphasis that the doctor should avoid this tendency and cultivate feelings of reverence and faith, for it cannot be too strongly insisted upon that it is the ceaseless striving after better things that makes us better men. Jonathan Hutchinson, the eminent English specialist, in one of his addresses to medical students said that faith is the most essential element of success. In its broadest acceptation this is undoubtedly true, for it is faith which gives earnestness to purpose, sincerity to character and an abiding joy to life. The physician therefore instead of cultivating a cynical attitude toward humanity should strive to fill his life with beliefs that transcend the bounds of ordinary experience. J. J. M.

WAYSIDE NOTES.

BY ERNEST B. SANGREE, M. D.

A few days since I nipped in the bud one of those interesting stories of the kind that relate to the discharge by Mr. or Mrs. This or That of a frog or snake or other unpleasant animal that has evidently remained a long time inside him or her and had thereby caused great grief.

It seems that a negro woman, troubled with diarrhea, got up in the middle of the night to move her bowels in the chamber vessel. The next morning upon picking up the vessel to empty it she was surprised and horrified to see inside a slowly wriggling animal of such frightful mein that she went into a violent fit of hysterics at the thought that such a thing could have come from her, and had fresh hysterics about every half hour for the rest of the day. Other members of the family, coming to the rescue, promptly secured the monster and hastened with it to their doctor. He was as much surprised as anybody, and upon learning that the woman now felt greatly relieved, and was sure she had felt the wretched beast squirming about inside her for days, he was convinced that he had lighted upon a most wonderful and interesting case.

The animal, too, was still alive, was to him quite unknown, and was withal so uncommonly hideous that he thought of having it photographed immediately and publishing this remarkable occurrence.

A brother doctor, though, of more sober disposition, suggested that he had first better send it to my labora-

tory for inspection and an opinion. I instantly recognized the cause of all the excitement as a harmless slug, an animal which is so ugly about its anterior parts that were it a thousand times larger it would probably be noted as the most horribly ugly thing in the world. They are quite able to crawl up a perpendicular pane of glass and during its nightly hunt for food it had doubtless run against the vas de nuit in the negro shanty, crawled up and incontinently fallen in.

When I read of the death, some months since, of Sir Spencer Wells, I was reminded of a little episode that occurred in the English Channel a year ago last May.

Our steamer, on the way to Bremen, stopped at Southampton, put off a number of passengers and took on a few. Among the latter were an old gentleman and his daughter. The old gentleman was soon left alone upon deck, for his daughter was below, having grown seasick the first hour, and when we saw the aged man tottering along the deck of the rocking ship, catching at this and that for support, we were moved to pity. Somewhat later my wife discovered him sitting in a secluded spot in the rear of the ship reading some French book. Feeling sympathy for the apparently lonesome old gentleman she spoke to him, and to amuse him exhibited the tricks of a little pet dog she had with her belonging to another lady on the vessel. He laid aside his book and engaged willingly in conversation. In response to an inquiry as to what book he was reading he replied that it was a French love story. I then appeared on the scene, joined in the conversation and discovered that he was also going to Berlin. I thought it very strange that so frail a man should be taking this trip, and inquired his occupation. He replied rather diffidently that he was a surgeon in such a way indeed that I fancied he made slight claims to much proficiency in this art, and was much surprised that he was going to Berlin especially to attend the congress of surgeons to be held there in a few days. He became very genial and talkative, especially to my wife, and finally got out his pocketbook in which he fumbled a good deal before drawing out a picture of a little grandchild in whom he evidently took much pleasure. After a little more talk we left him again to his book, having in ourselves a little of the sensation of having performed a sort of Good Samaritan deed, and we saw him no more on the ship.

One week later in Berlin was the evening of the theatrical entertainment, reception and banquet given by the Emperor to the congress, a function so notable that every Berlin doctor was striving by hook or by crook for an invitation, but mostly in vain, and there was in consequence much weeping and gnashing of teeth.

Through the herculean efforts of a good and powerful friend of ours I succeeded in getting cards of invitation for my wife and myself. That evening as we were about to sit down to the banquet I noticed a marked commotion near me, and my friend immediately make a profound bow. I looked around and saw passing through the narrow aisle the same old gentleman of the ship, leaning on the arm of a distinguished looking man. "Who is that?" I asked. He replied, "Sir Spencer Wells."

Correspondence.

THE SERUM TREATMENT.

Editor of "Times and Register:"—By the transfusion of the blood of a person or animal, immune from contagion, into the veins of another animal or person not immune, the second animal or person will receive the same immunity as the first. This law has now been tested by many of the greatest pathologists of the world, and found to be true to a great extent.

"In July, 1889, Babes and Lepps recorded a number of experiments in which they found that the blood of dogs which had been vaccinated against rabies exerted a distinctly protective action when injected into susceptible animals, either previous to, or along with, the virus procured from a rabid animal."—The Popular Science Monthly, June, 1890. Twelve months later Behring and Kitasato, of Berlin, established by many experiments this most important medical law. In "The Times and Register," June 22, 1889, page 185, in an article on "Antagonism of Forces," applied to the cause and prevention of epidemics, I used the following language: "A chicken having recovered from the cholera is possessed of an antagonism to that disease. Now, if its blood be injected into the veins of another chicken, will the antagonism be communicated to the second chicken? If the antagonism is in such blood, can it be cultivated and multiplied like the microbes of the disease, and then communicated to other chickens sufficiently to prevent them from having the cholera? Here is a wide field for experiment with all microbic affections and antagonisms." I am aware that the one who advances a theory has not equal credit with the one who establishes it by experiment, but this is not always the case. Galileo advanced the theory of the atmosphere's having weight. Torricelli and Paschal established it by experiments; but Galileo received the chief honor for the discovery. Franklin published to the world his theory of the identity of lightning and electricity, and described a specific experiment by which it might be tested. A Frenchman tried the experiment, established the theory and afterwards tried his kite experiment and proved the same thing. In the contribution from which I have above quoted I gave my theory that gave Franklin the honor. Franklin the antagonism to a contagion is something separate and distinct from that contagion, and may be acquired by a person without his having had the disease; and I also pointed out numerous instances in which people had acquired antagonism (immunity) to certain contagions without having had such contagions, and suggested the possibility of capturing and administering antagonisms. I next pointed out exactly where the antagonism might be found, and stated a specific experiment by which it might be tested. Twelve months afterwards Behring and Kitasato established the theory I advanced by experiments on the identical plan which I suggested. Why the pathologists of America, who are well prepared for such work, did not take up the suggestion at once and win the honor of the test for themselves, I am at a loss to know.—E. H. Randle, Byhalia, Miss.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

DISCUSSION ON INTESTINAL OCCLUSION.

Societie de Chirurgie de Paris, France, du Octobre, 1897.

M. Quenu began by saying that he could not entirely indorse Mr. Broca's views in totally banishing the operation of artificial anus as a therapeutic resort in intestinal occlusion.

Particularly would he draw the line, in cases of intestinal paresis, in occlusion of the aged, in cases of certain types of cancer and many others which show no residence of organic lesion argued here. Lately I operated on a case in a man 72 years old—acute occlusion, tympanitis and facculent vomiting. The symptoms pointed to mechanical occlusion. I made an artificial anus, with immediate relief. Four months later I performed an operation to close the orifice, but my patient developed pneumonia and sank.

In curing old cases of constipation there is a tendency to curvature of the large intestines.

In these we should first try purgative enemata and electrization, then later, if necessary, make a small artificial anus.

M. Kirmisson also added that he was astonished to hear M. Broia declare that "laparotomy should be the general treatment for intestinal occlusion." He wished to repeat what he had formerly declared, viz.: that it was, as a rule, possible to locate the site of occlusion, and cited a case of a young man who had an insidious occlusion, which, however, he was able to recognize in the sigmoid-flexure; a voluminous osteroid sarcoma. The colon was tapped with immediate relief, the patient surviving for some time after. To infer that laparotomy as a general procedure was a great error; hence, in many, he believed that after the relief afforded by a temporary colostomy, one might, later, if necessary, when definite diagnosis was established, do a laparotomy.

M. Reclus declared that he was in general accord with MM. Quenu and Kirmisson, and recorded a case in which, although the symptoms were alarming, an artificial anus of small calibre gave immediate and permanent relief.

M. Berger believes that the cause or seat of occulsion is often difficult to determine, and what is unfortunate in quite a few, definite diagnosis may be impossible, even after the abdomen is opened. During the past year he had seen, with M. Neleton, a case in a woman of 40 years, who had several attacks. He made a large laparotomy over the cecum, but could discover no cause. A cecial anus was made, through which there was an abundant discharge. The patient made an excellent recovery, the anus closing of itself.

M. Sigmond wished to protest against the proposition of M. Broca that laparotomy was the general method of dealing with intestinal occlusion. In severe, prolonged cases we might make an artificial anus without the shock and danger attending its laparotomy. This simple procedure may be performed in a few moments, and is not a serious operation. It, alone, will certainly sometimes save life, and give us time to decide on definite action. This was lately demonstrated in a case operated—a young woman. The intestine was opened, followed by a free discharge, with immediate relief of all the symptoms. Three weeks later, when meteorism had entirely subsided, a tumor of the transverse colon was discovered; that was bisected, an entero-enterostomy done and patient saved, with the canal restored. He believed that enterotomy was preferable to laparotomy in post-operative occlusion, consecutive to vaginal hysterectomy.

In many of these cases, if you open and relieve the strained intestine, relief will come, and nature will do the rest. I wish, then, to declare, as my belief:—

First, that enterotomy will save life.

Second, this will permit of a secondary operation.

Third, it will not kill by shock, as laparotomy may.

M. Nelaton stated as his belief that the diagnosis of the cause of illness was, in the majority of cases, quite impossible; for the reason that, as a rule, these cases seldom come under the surgeon's hands until obstruction has existed several days, and all palliative measures have failed. Purgatives and clysters have been tried in vain; vomiting is constant and tympanitis is so great as to render illusory all our most painstaing efforts at palpation.

It is true that in certain instances we may possibly by surface indications and others suspect impaction, paresis, torsion, etc., but in the majority, nevertheless, anything like a definite diagnosis remains impossible. Need it be recalled here that appendicular inflammation may give us all the conditions of occlusion, as invagination or volvulus. Therefore, in the presence of this incertitude, is it not better to simply relieve the distressing distension by a simple opening into and draining the intestines, than to subject our patient to the dangers of a laparotomy? In fact, in the presence of great intestinal distension a laparotomy is attended with enormous gravity. I have done this operation and assisted at several, but in all cases the difficulty of finding the cause of occlusion and returning the intestines were very great indeed. On the contrary, the making of an artificial anus is a simple and rapid operation, and, as observed in most case s,the bowels once penetrated, a great gush of gas and fluids escape, and is generally followed by prompt relief of all urgent symptoms.

M. Michaux: Cases of intestinal occlusion, he declared, are very dissimilar, though generally they may be divided into the acute and the chronic. For the acute, laparotomy was the ideal procedure; for the chronic, an artificial anus. But here, in the latter, we must take care to open the intestines low down, in order that the patient may not sink of inanition. He recognized an artificial anus as a complimentary step in many cases, to be later followed by a laparotomy. In his cases of occlusion, acute, he opened the intestine by a small incision and thoroughly emptied it of all material, when he flushed the parts, closed the incision and abdominal wound. Four times I have resorted to this simple expedient; successful in all; one, intestinal strangulation; once I was able to detect by it and relieve an unsuspected volvulus; and, again, another tumor—a tumor of the jejunum, which I then and there removed.

M. Routier declared that the subject of the treatment of intestinal occlusion was by no means a new one, for, without speaking of the discussion of '85 and '87, he might mention his own essay on the subject in '90. In the beginning, I beg to affirm with MM. Nelaton and Kirmisson that the diagnosis of the seat of intestinal occlusion is quite invariably difficult.

MM. Monod Le Fort, Ferrier and Trelat laid it down as a rule that it was in these cases difficult of diagnosis, that we should make a laparotomy. But this is much more dangerous than to perform enterotomy and evacuate.

M. Segond says that many die later after an artificial anus, but the patient is not killed by it. This is true in some cases, but not in all; for I have seen two patients die very promptly after the simple opening of the intestine. It is true that enterotomy is safe and simple in chronic obstruction, but, when acute, the danger is by no means trifling; but, at best, it is uncertain and unsatisfactory. Laparotomy should always have the preference, if anything like certainty of diagnosis is possible and the case is recent. On the contrary, where exhaustion is great and all is obscurity, a new anus should be created.

M. Hartman expressed his great surprise that so far, at this meeting,

one should note so many masters in the surgical art rising in arms against his friend, Broca's, views on laparotomy for intestinal occlusion. Now, M. Broca had spoken of laparotomy as a proper procedure for acute intestinal obstruction only. Certainly in chronic cases enterotomy was preferable, but in acute cases, when diagnosis was impossible, laparotomy became imperative, as a measure of choice.

It has been said that laparotomy kills. This has not been my experience. The great point in prognosis depends in the length of time elapsing from the time of occlusion to the time of operation. Early laparotomy in these cases quite invariably preserves life. What kills those patients is not the surgeon, but the forced and repeated purgatives, injections and electricity. Valuable time is lost and laparotomy comes too late. It has been said that the making of an artificial anus never kills; perhaps not, but, nevertheless, few long survive it. It is admitted that in chronic obstruction of the large intestines its effects are marvelous.

But in acute cases of intestinal obstruction, in invagination, hernia, torsion and a large series of cases, it is most positively contra-indicated. One of the worst cases of tympanitis I ever saw accompanied volvulus. It was a case in which the sigmoid mounted above the navel. In the other there was a strangulation in Winslow's canal; another retro-peritoneal hernia. An artificial anus would most certainly have been useless in all these cases. It may be said that in most chronic cases and in all acute, seen early, laparotomy is the operation of choice, and is not mortal in its effects. And if our statistics are not favorable, it is the fault of the physicians who send their cases in too late. It is entirely agreed that when the time is past to promise anything by laparotomy, an artificial anus will permit of easier death, or relief in the last moments.

M. Chaput agreed with the majority of his colleagues that the cause of occlusion is nearly impossible to detect in all but few exceptions. Sometimes one may diagnose occlusion when there is apertonitis or appendicitis, but I must insist on the general inability and danger of laparotomy when there is marked tympanitis attending occlusion. Supposing a tumor is present, a resection and anastomis is rather contra-indicated, as it is a long and complicated step. There is danger of besmearing the field with feces; energetic pressure may cause gangrene of the intestines. In cases of paralysis I have seen manipulation of the intestine; in no manner stir the bowels into action.

True, in bridles, invagination, etc., the large incision permits of pus access, but its advantages are largely overbalanced. In an exhausted patient it is often followed by speedy and mortal collapse.

I have not been so happy in my experience as M. Michaux, for I could only empty one coil of the intestines, and experienced great difficulty in its reduction. An artificial anus, like tracheotomy, is a fairly safe measure of surgery; as recommended by Schede, it permits later of rational, tentative measures, if the danger is past. But an artificial anus is a sovereign remedy in tumors of the intestines in paresis, in compression and adhesions; it affords the same relief in intestinal strangulation, invagination or bridles. In all cases of strangulation this exists, because the intestine is distended. Remove this and relief is immediate. I would, however, reserve laparotomy for cases of flat-belly, with moderate distension.

The following principle for our line of conduct should be more classical and vigorously observed:

First, all patients seized with acute obstruction should be immediately operated on.

Second, those with chronic obstruction, in whom mild measures fail, should be operated on immediately on the beginning of vomiting.

I advise that an iliac colostomy be performed under cocaine. The incision should be free. The cecum should be sought and opened. If the cecum be collapsed, we must draw down the small intestine until the seat of strangulation is found. If this be crossed by a bridle or invagi-

nation, it should be treated, or an artificial anus established.

M. Bazy did not deny that the diagnosis in occlusion was often very difficult, but he did believe that the seat of obstruction was generally easily ascertained, when we might decide on what line to pursue.

Laparotomy has its indications and does not present the extreme gravity declared by M. Nelaton. I have laparotomized in two cases for occlusion; successfully in both. Laparotomy has been declared particularly dangerous in cancer by MM. Ferrier and Championniere; nevertheless, in many it is quite benign.

M. Felix Lejars opened the discussion on the second day on intestinal occlusion. He states that on the request of M. Broca he would submit some reflections on the subject of pseudo-occlusion paralytic.

Intestinal-paralysis-ileus might occur of itself, or as a consecutive factor. I wish to recall here that secondary paralysis may succeed divers forms o pferitonitis infectious, enteric, strangulation. Sometimes it appears in a benign form and yields to electricity or a purgative. Here the author cited several cases which happily yielded to electrolysis and simple remedies. In several cases, seen early, by the intelligent employment of electricity alone, he was able to effect a prompt evacuation. In others, when this failed, laparotomy or artificial anus was superadded. In others but a simple incision was made into the peritoneal cavity, adhesion liberated and air admitted, with the happiest effects.

M. Lejars is a pronounced advocate of an artificial anus, rather than laparotomy, in most cases; although he attaches great importance to the utility of electricity in the early stages.

M. Felizet said that as acute occlusion of the intestine permitted essentially special features in the child, he would address his remarks chiefly to that type.

First, with the child, the causes of obstruction were much less common than with the adult. Cancer, paralytic, invagination, birth and adhesions, the result of lesions, were rare here. In most cases in the child I have been struck by the usual abscene of premonitory symptoms. In the infant sensation is but rudimentary; hence, he may suffer little and complain less. With the infant the intestine possesses much greater power of resisting obstacles; its contractions are violent, but short. But enervation and reversion of peristalsis are rapid; hence, fecal vomiting sets in early. The abdomen, when positive resistance is offered, becomes enormously distended, when the circulating apparatus in the thorax becomes seriously embarrassed; so that diagnosis of location becomes impossible. Distention is generally great and death early, without speedy relief. Laparotomy now is indeed a serious affair. Quickly the confined intestines shoot out; we may possibly search for the seat of trouble without avail. Return of the intestines may be next to impossible; in the meantime collapse is quickly setting in. Laparotomy adds the dangers of traumatism; the depression and vomiting of chloroform and hemorrhage; and in any event, though the obstacle be discovered, much time must be consumed. It is now sixty years since Gustave Monod first practiced enterotomy for this condition. He was soon followed by Malston, who perfected it. It is simple, safe and rapid in execution. In the infant, as the adult, it may be perferred with cocaine. In four children I have employed the artificial anus; all recovering. This operation, then, as well said, is one of urgency, as tracheaotomy, and, like it, one of salvation. Relieve the pressing symptoms first; then, later, and as proper condition, present proceed with laparotomy, if expedient and necessary. It should be remembered that in artificial anus of infants the tendency of spontaneous closure is the rule.

M. Segond stated that here, as in many affections, accurate diagnosis was often impossible; hence, one could not counsel laparotomy to the exclusion of artificial anus in all cases; and further, this latter operation is to be preferred, because it will not kill. This one can often dem-

onstrate. Some time ago I performed an enterotomy on a young woman with obstruction and enormous distension. Relief immediately followed. Three weeks later the abdomen was opened, when the adhesion of an appendicitis were freed, and recovery followed.

On a similar case I had recently performed laparotomy and lost my patient.

M. Piegue said that it was evident from the discussion on the essay of M. Broca how complex and delicate a problem surgical intervention was in intestinal seclusion.

I believe it is our duty to submit to this tribune at least our personal experience.

For many years, influenced by my celebrated masters, I looked askance on laparotomy in this state, and hence employed nothing except the artificial anus, with which I often have satisfactory results. Now, let us not be betrayed into a sense of security by the assumption that an iliac anus is a benign affair; for it most certainly is not. The results after those operations of artificial anus prove nothing; they were no doubt with few exceptions simple cases, false ideas and not true obstructions. As well might I glorify purgatives and enemata, because many times when called to operate, these means alone have cured my patients. An illustration: I was lately called to make an artificial anus for occlusion. Gave purgative, which did not act; then administered chloroform; discovered and evacuated an abscess of cecum, with immediate and complete relief. With regard to difficulties in diagnosis I agree with part of what has been said, and take positive issue to the rest.

To anyone practicing my line of action is, when a case of obstruction comes under my care, after a most thorough study and surface examination, I first make a small exploratory incision and endeavor to seek out the seat of trouble. That is one rational line of action. An illustration: A case lately came under my treatment. My colleagues disagreed in diagnosis; one had it appendicitis, another muco-membranous enteritis, etc. The father of the young man wished an iliac anus made, but I refused. Then a laparotomy was done, when a tight bridle, clothing the ileum was discovered and freed. Prompt recovery followed. In another similar case this was a hernia in the sacral diverticula.

M. Poirier agreed with the majority of the speakers that in many cases there was no room for choice, and an artificial anus was the only procedure our patient possibly could survive. He said this advisedly, because he only lately had laparotomized and lost two cases, which he believed might have been saved by an artificial anus. A laparotomy moreover demands the most vigorous asepsis, ample assistants and proper environment. Enterotomy required but little preparation and was readily performed. It should be remembered, however, that, when well supported, laparotomy was the ideal and rational procedure, especially in women, after vaginal hysterectomies.

M. Paul Reynier: I shall not much further prolong this discussion, and will be brief. On the main question we are practically agreed, although I cannot submit that diagnosis is always attended with the difficulties referred to. I will not say that by a carful survey of the antecedents, the history, examination and symptoms, we can proclaim with certainty the precise site of adhesion; but I will say that in experienced hands this should be ample to decide us on our choice of action, and point with fairly unerring certainty the site of lesion, and influence us in line of operation.

Let us consider, for instance, appendicitis and lesions of the pelvis, alone. In a very large surgical service of over several years I can recall but three or four in which diagnosis was impossible. I maintain, then, all is groping in the dark, if we have not some fair conception of the lesion before us when we operate. It is true that in cases of great depression with feeble pulse, in the absence of asepsis, an artificial anus, as a tracteotomy as a measure of agency is our only relief-measure available.

An artificial anus leaves a deplorable state of things, and worse yet, again involves a fresh danger to life in an attempt to cure it; nor let us close our eyes to its dangers, nor forget that many sink within twenty-four hours after it is made.

It is always an operation of urgency and not of choice.

M. Poirier regrets that in two cases he did not perform an artificial anus, and I may add two more in which I did enterotomy, and lost my patients, who might have been saved by laparotomy. In one, on autopsy, a mesenteric cyst was found compressing the bowel, in another the intestine was caught and strangled in Winslow's canal. My opinion then is that a laparotomy is always the operation of choice in intestinal adhesion for those who have the force to sustain it and admit favorable surroundings.

(Note by translator.)

Much pains have been taken to present the greater part of the discussion at the late congress of French surgeons to our readers, as it comes from the lips of the speakers, for the reason that without exception they are all prominent and distinguished, well-known, eminent authors and teachers, whose utterances should carry great weight; besides, because perhaps there is no theme in surgery of greater interest or importance to the practitioner than intestinal obstruction, both the acute and the chronic, and that remarkable state of alimentary stasis, designated ileus, in which no mechanical impediment exists, and yet there are grave constitutional disturbances.

From the foregoing discussion, although there is some diversity of opinion, there is a fairly general accord on the proper line of action when the surgeon is called on to act. He must, in extreme exhaustion, as in extreme asphyxia, first tap the tube, i. e., make a lumbar or iliac incision and open the colon or small intestine and let out its contents. This is likewise proper in all chronic cases. This, however, it should be remembered is a desperate resort of urgency, justified only in exceptional cases.

As M. Reynier properly states it, the most important of all is to endeavor to make a correct or approximately correct diagnosis. One well-trained in the surgery of the abdomen should be able to do this in nearly all cases. This being done and with ample facilities at hand the experienced operator should not hesitate to enter the peritoneal cavity for exploratory and therapeutic purposes.

The incision should be made over the probable site of obstruction, and should be small—just large enough to admit two fingers, then if necessary the incision may be enlarged. In the adult, remembering that the seat stenosis is most commonly at the henial apertures, these should be critically examined; next, the vicinity of the cecum for appendicitis, and lastly, the lower pelvis in the females.

It should be remembered that when the case is turned over to the surgeon it is assumed that all tentative resources are exhausted, and that sanguinous measures only are to be contemplated; but this is certainly an error, for the art of surgery includes something in the way of science, and that the surgeon must be something more than an anatomist and skilled dissector to be worthy of the name. Therefore the writer would venture to call attention briefly to two expedients of infinite value, especially when urgency is not great—and no one should ever for a moment force the bowels simply because they fail to move—as it is well known that an evacuation may be delayed for several days with impunity.

The first and most potent remedy is morphine, hypodermically, in full doses, beginning with a small dosage and gradually increasing. In pseudo ileus it is a sovereign remedy, but it must be pressed until mental calm, ease from pain are sesured, and until peristalsis is arrested. The next remedy of great power is mercury epidermically administered.

In many times has the writer witnessed its marvelous action in extreme tympanitic distention with ileus. The free inunction of four

or five drams rubbed freely into the abdomen in the course of ten or twelve hours acts with antiphogistic energy, reduces inflammatory action and often promotes an early and large evacuation.

When the time comes for operative surgery the most experienced is often sorely tried before adopting decisive measures.

The writer has performed exploratory laporotomy in four cases of obstruction, and one with resection of the intestine superadded. Every one died in less than 24 hours. In the presence of inflammation, which was present in all these cases, it is hard to conceive of a more difficult or grave undertaking. In more than thrice as many more in which he was called to operate, but resorted to tentative measures, the patients all recovered.

Nevertheless, now that we have cocaine anesthesia, the artificial anus will enable us to save many desperate cases heretofore lost.

In this connection the writer wishes to acknowledge his obligations of gratitude to M. Reynier, of Paris, in whose wards last summer in Laraboissicrere he was extended so many courtesies and offered exceptional opportunities for study and observation. T. H. M.

PROFESSOR BOGOSLOWSKY ON "APENTA."

"W. S. Bogoslowsky, from clinical observations on the action and value of a constant bitter water, draws the following conclusions (*Translations* of the Moscow Section of the Society for the Preservation of Public Health, No. VI):

Systematic treatment with Apenta water is especially indicated for constipation produced by atony of the bowels, and it has the advantage that its use does not give rise to subsequent constipation.

Its action is more gentle than that of some other bitter waters because it contains less calcium sulphate and no magnesium chloride. It is probably owing to this circumstance that it does not cause crampy pains.

The efficiency of Apenta as a remedy for the systematic treatment of obesity is clinically established."

—The British Medical Journal, *August 28th, 1897.*

Dr. Koonse, LaFayette, Ind., offers to send free for a limited time to any practicing physician, his new booklet on the Opium, Morphine, Whiskey and other addictions, outlining the only perfectly safe and positive cure. This treatment is used only through the medical profession; has been tested by 2,000 physicians and their verdict is "simply wonderful." Write (enclosing stamp) for book "How Cured," clinical reports and full particulars. Doctor, if you are interested in this offer, write at once.

URTICARIA.

Brocq recommends the following pomade:

R—Acid carbolic .....gr. xv
Ess. menth. pip.....m xv
Zinci oxidi..... dr. iij
Lanoline .....oz. ss
Vaselin .....oz. ij

The application of the ointment can be preceded by antipruriginous lotions of chloral in eau-de-cologne.

—Ex.

Current Medical Literature.

SOME REMARKS UPON THE URIC ACID DIATHESIS AND ITS TREATMENT.

BY CHARLES F. CRAIG, M. D.,
Danbury, Conn.

The uric acid diathesis is a rather vague term, covering a multitude of sins in diagnosis and treatment, in its commonly observed applications. Because a patient has a set of symptoms which we cannot dovetail into those of any one disease, organic or functional, is not to say that he is suffering from the uric acid diathesis; such a diagnosis is only a coverer up of ignorance, a soother of the conscience of the puzzled practitioner. If there be such a condition of the body as a uric acid diathesis it is evidenced by certain well-known signs, which every practitioner should be able to recognize; it is not a universal repository in which every case which has a vague diagnosis can be placed, and it is time that this false idea be rooted out.

The uric acid diathesis exists in that person whose system fails to eliminate the proper amount of uric acid. What this amount may be varies in each individual case. A deposition of an amount which would produce symptoms in one person might not be evidenced at all in another; it is not due so much to an excessive formation of the uric acid, but to a faulty elimination of it. Stated simply, the uric acid formed is not eliminated as it should be normally, but accumulates, according to Haig, in the blood, producing muscular pains, headache, mental depressiin, high pressure in the blood vessels, etc., or is deposited in the joints, producing gout and rheumatism.

The symptoms of the uric acid diathesis, excepting gout and rheumatism, are protean in number and variety, and are exceedingly hard to classify. Among those affecting the digestive system are anorexia, discomfort after eating, flatulence, pyrosis and persistent constipation; of the urinary organs, a sense of heat and burning after micturition, frequent micturition, and pain over the region of the kidneys; the pulse may be irregular and intermittent, there is increased arterial tension and sometimes attacks of palpitation, and there is generally present great depression of spirits, and a general sense of weariness and inaptitude for effort of any kind. The sleep is restless and on wakening in the morning the patient feels as tired, or even more so, than on retiring.

The symptoms arising from the nervous system are of much interest, comprising vertigo, tinnitus aurium, muscular pains and cramps, headache, neuralgia, affecting various parts of the body, spinal irritation, vaso-motor disturbances, insomnia, general nervousness and fevers. Hysterical and even epileptiform symptoms have been described by some authorities, and delusions are not uncommon.

One or many of these symptoms may be associated in a single case, but in no one case will they all occur. It has long been the author's opinion that migraine, with its peculiar symptomatology, is an expression of the uric acid diathesis, and from repeated examinations of the urine after attacks of migraine this inference is strengthened, for in the vast majority of instances the urine has showed an excess of uric acid.

The symptoms enumerated are generally seen either in those leading an indolent, luxurious life, little outdoor exercise being indulged in, or in those whose occupation keeps them within doors and sujects them

Read before the American Medical Association, Section of General Surgery, at its meeting in Philadelphia, June, 1897.

to more or less mental strain and worry. In fact, the hypochondriacal or those tending toward that temperament are most subject to the uric acid diathesis.

The urine of those suffering from this "diathesis" possesses great clinical importance, and in every suspected case should be most carefully examined. It is always highly acid, of a dark golden color and in a large proportion of cases contains a sediment of uric acid crystals.

In a larger proportion of cases, however, the uric acid is not deposited as uric acid crystals in the urine, but exists in combination with sodium and ammonium, forming acid urates. When it is separated from its bases it crystallizes in rhombic or prismatic crystals, of a red color, and it is these which form the red granules seen in some urines. Not every urine showing this sedimentation contains uric acid in excess, for it may be due to a decreased solvent power of the urine, rather than to an increased amount of uric acid.

More commonly the urine of those having the uric acid diathesis show a fine, powdery sediment, pinkish in color, and which is formed by the precipitation of amorphous urates. Such a deposition may often occur in the urine of other diseases, but its presence is always suggestive, and the clinical history will generally bear out the diagnosis of uric acid disease.

It is not my purpose to discuss here the numerous theories advanced concerning the formation and excretion of uric acid, save to say that it is now pretty well established that it is formed within the tissues, and gotten rid of by the kidneys. Experimental research seems to bear out Minkowski's view that it is formed within the liver.

The treatment of this condition in all its phases, is, as may well be supposed, not always satisfactory. That this is so is proven by the great number of therapeutic agents which have at various times, been announced and have occupied for a time the favor of the profession, only to be found but seldom useful, or, more often, useless in combating the diathesis. In my opinion, more attention paid to diet and exercise, and less to medicine, would be productive of better success in treating this class of cases. We have to do, not with a well known disease entity, accompanied by a greater or less number of characteristic symptoms and produced by an external agent, but rather with a numerous army of divergent, and often unexplainable, symptoms, produced by a grave nutritional disorder of the system. Unless the fault which lies at the basis of the diminished power of eliminating the uric acid formed is corrected, the treatment can only be symptomatic. That the system can be aided in correcting this error of metabolism there can be no doubt, and it will be found that such aid will consist largely in a carecully selected dietary and a proper amount of sleep and exercise.

Regarding the diet it may be said that the carbohydrates should be diminished, and that, therefore, saccharin and starchy foods should be but lightly partaken of. Sugar should be used as little as possible, as also the sweet fruits. Hot bread stuffs, pastry, cake cereals, and corn, especially, should be avoided. Potatoes, which you will find are very favorite articles of diet with these patients, should be either entirely cut off, or used very sparingly. Meats, oysters, fish, eggs, the fresh vegetables, such as tomatoes, cauliflower, lettuce and cucumbers, can be used, but moderation in eating should be carefully impressed upon the patient. Milk should be given plentifully. The various mineral waters serve to favor elimination, and the patient should drink large quantities of them. Alcohol in every form is hurtful and should be avoided. The skin should be kept active by means of daily baths, and the bowels open by occasional saline purgatives. The dress should be warm, and suited to the climate.

Exercise is of the greatest importance, and should be taken out of doors. In almost every case showing the symptoms of the uric acid diathesis, we find on inquiring that but little outdoor exercise is taken, and indeed little exercise of any kind. Boating, hunting, riding, fish-

ing, walking, are all good forms of exercise, and should be, in one form or another, insisted upon as important elements in the treatment. Let the patient be outdoors as much as possible, and engaged in some form of muscular exercise. Too much importance cannot be paid to exercise in the treatment of the uric acid diathesis.

Regarding the medicinal treatment of these cases, I would say that until within the last few months, I had but little faith and still less success in the treatment of the uric acid diathesis by drugs. To be sure, the various symptoms can be alleviated by suitable agents, and the use of mineral waters has always seemed to me to be beneficial, but as far as any marked and lasting benefit was concerned, I had never been able to satisfy myself that there was such. During the last few months, however, I have been using in the treatment of these cases a synthetic remedy, called Uricedin, which has given me great satisfaction. This agent was first introduced by Stroschein in 1893, and is a chemical compound, consisting of citrate of sodium, sulphate of sodium, chlorate of sodium, acetate of sodium, tartrate of sodium, pomate of sodium, limonine, etc., in definite proportions. The preparation is produced by a special chemical process through the action of purest sulphuric and hydrochloric acids and carbonate of sodium on true critic acid from the lemon fruit.

I have used this drug in a number of cases, of which the following are examples:

Case I. T. H., aet. 40, had suffered for several months with flatulency, poor appetite, bilious attacks, headache, and vague muscular pains, neuralgic in character. Was much constipated. Gave a family history of rheumatism and sciatica. His urine was dark red in color, of high specific gravity (1.030) and contained a heavy deposit of uric acid crystals. Reaction highly acid. No albumin, no sugar. He was placed upon teaspoonful doses of Uricedin dissolved in a glass of hot water, three times a day, and directed concerning his diet and mode of life. At the end of a week he reported that he was feeling much better. The urine now had a specific gravity of 1.022, was only slightly acid and contained no appreciable sediment of uric acid, although under the microscope a few crystals were detected. Two weeks afterward the patient returned, and reported that he felt better than he had in months; his appetite had returned, headache and muscular pain had vanished and his bowels moved regularly.

At the present time, about two months since the commencement of treatment, he is well to all appearances. His urine now has a specific gravity of 1,010, is alkaline in reaction, shows no sediment and is increased somewhat in amount. He has not taken any medicine for three weeks, and says that he does not feel the need of any.

Case II. I. C., female, aet. 12. Family history, rheumatism in father and mother. Complained of neuralgic pains in arms and legs, frontal headache and flushes of heat; also poor appetite and constipation, with occasional attacks of vomiting and diarrhoea. Had been that way for about four months. Physical examination revealed nothing. Her urine was below the normal in amount, dark yellow in color, having a strongly acid reaction and a specific gravity of 1.027. There was a heavy deposit of acid urates. No albumin or sugar. She was put under half-teaspoonful doses of Uricedin morning and evening, dissolved in a glass of hot water. At the end of two weeks her father called at the office and reported that she was feeling very much better. At this time her urine had a specific gravity of 1.015, slightly alkaline reaction and no deposit. Treatment was continued for another week, at the end of which time I saw her. The pains in the arms and legs, as well as the headache, had disappeared, her appetite was good and her bowels regular. I directed that on the first return of any symptoms they were to recommence the treatment, but this has not, as yet, been necessary.

Case III. B. B., male, aet. 24. Family history, rheumatic. He came to me complaining of great nervousness, frontal headache, general lassi-

tude, and muscular pain, constipation, poor appetite, restless sleep, interrupted by dreams, and a feeling of depression merging almost into melancholia. An examination of his urine showed a specific gravity of 1.030, a strong acid reaction and a heavy deposit of amorphous urates. There was no albumin present, but a very slight trace of sugar (about 0.25 per cent.). He was placed upon teaspoonful doses of Uricedin dissolved in a glass of hot water, three times a day. At the end of a week he reported that he was not much, if any, better. His urine showed a specific gravity of 1.025, acid reaction, and a somewhat diminished sediment of amorphous urates. The treatment was continued, and at the end of three weeks the urine had a specific gravity of 1.020, alkaline reaction, and contained no sediment. The patient was feeling much better, his appetite was good, the general feeling of lassitude and muscular soreness and pain had disappeared, and his sleep was refreshing and sound. At the present time he is taking no medicine, and is feeling well.

In the three cases just recorded great emphasis was laid upon diet and exercise, and my directions in that regard were carefully carried out.

The following case is a most remarkable one, especially to those well acquainted with the patient:

Dr. W., aet. 50, American, 200 pounds in weight, with a hereditary tendency to gout, in 1866 had his first attack of nephritic colic, passing a small calculus. At intervals of about two months for four years the attacks recurred, until March, 1890, when the stone which I give you was passed immediately following an attack of the grip.

This last attack nearly cost him his life, the stone taking several days to pass, and the prostration resulting from the same rendered his recovery doubtful. A vigorous constitution, however, pulled him through, and for the last seven years no stone has passed, but all the evidences of stone in the pelvis of the kidney, constantly increasing in size, have been present. In fact, all the symptoms of this patient pointed conclusively to a gouty diathesis of the most pronounced type. At no time during these later years has there been a day, an hour or a minute without pain, most of it a terrible pain, and the exertion, worry, care or indulgence in stimulants, or excessive use of tobacco would bring on those frightful contractions of the kndiey, in its futile efforts to expel the stone. Nights were unrestful and filled with bad dreams, while the bed looked in the morning as if an elephant had slept in it. Great mental depression followed, with irritability and insomnia, until life became a burden.

This man being a physician naturally not only had the advice of the leading members of the profession in this country, but those abroad, whose treatment he faithfully carried out, with only the most temporary relief. It was by accident that he came across Uricedin, became impressed with its value from its formula, commenced using it three times a day for three days, and afterward once a day till the present writing. The result of this treatment has been that after three days the drainage went, not to return but once, when an exacerbation occurred after the indulgence in a champagne dinner. Eight pounds were lost, the girth around the waist was reduced four inches, the bowels were regular, the skin cleared up, the appetite improved, sleep was dreamless and profound, the mental depression disappeared, the capacity for work returned, as well as a desire for it, and the change was so great as to create a very profound impression upon his friends.

The remarkable feature of this case, however, was the large quantity and increasing amount of debris of the stone.

R., aet. 33, another physician, weighed 200 pounds, and presented all the symptoms of gout, including pain in the right big toe, almost incapacitating him; large quantities of uric acid were present in the prine and there were painful attacks in the kidneys and the stomach. While this case was not so severe or long standing as the preceding one, the results of the treatment were quite as marked and decisive.

Mrs. B., aet. 52, suffered from gout of the stomach for the last eight years, was relieved within a week and perfectly cured after a month's treatment.

The cases cited above are average cases and show the benefit resulting from proper hygienic routine, together with the use of Uricedin. While I believe no drug can do much good if diet and proper exercise be not attended to, and that no drug can be called a specific in the treatment of this diathesis, I do believe from my own experience, and that of others, that we have in Uricedin a most valuable addition to the therapeutics of the uric acid diathesis.—N. E. Med. Monthly.

ON THE USE OF XEROFORM IN THE TREATMENT OF SKIN AND VENEREAL DISEASES.

By DR. HEINRICH PASCHKIS,
Lecturer at the University of Vienna.

(Abstracted from the Wiener Klinsche Rundschau, 1897, No. 42).

One of the most important improvements in the treatment of ulcerations of all kinds is the use of remedies in the powdered form. The absence of necessary preparation and the ease of application have given it a permanent place, more especially in the ambulant treatment of the diseases of the skin and the sexual system. I am pleased to admit that the latest and cheapest of these powdered remedies, xeroform, has entirely fulfilled all the demands that were made of it. I have used it in over 100 cases of the most varied kinds, including ulcerations of all sorts, eczemas and various other skin diseases.

The mode of application was very simple. After cleansing the surface of the ulcerations with a wad of cotton the xeroform was dusted on with a camel hair brush, two to four layers of absorbent gauze placed over it, and the whole when necessary dressed with cotton and a bandage. Bandaging was dispensed with when the ulcerations were seated upon the glans, the inner surface of the prepuce or the sulcus coronarius. Burns were dressed in exactly the same way. In eczemas and other skin diseases the excoriated areas were either treated in the same manner, or they were first powdered with the xeroform and then covered with an indifferent salve or Lassar's paste.

The following cases were treated:

1. Ulcerations of the genitals, including lesions remaining after opening of suppurating lmyphatic glands..... 62
   Time of treatment up to cicatrization .....4 to 43 days
2. Herps, zoster and blananitis..... 5
   Time of treatment up to cure .....4 to 11 days
3. Eczema 6
   Time of treatment up to cure .....8 to 22 days
4. Chancre 7
   Time of treatment up to cicatrization .....13 to 20 days
5. Ulcers of the leg..... 5
   Time of treatment up to healing .....7 to 30 days
6. Burns 4
   Time of treatment up to cicatrization .....6 to 108 days

The action of the drug throughout was a very satisfactory one. Necrotic venereal ulcerations, as well as simple ones of the legs in similar condition cleaned off very rapidly. Healthy granulations sprang up rapidly even in deep ulcerations, and cicatrization advanced daily. Erosions and superficial losses of tissue closed up within a few days at an astounding rate; and the same occurred with the exulcerated initial lesions. Naturally the latter sometimes remained depressed and hard after the ulceration had entirely ceased. Specially valuable characteristics of the xeroform seemed to be that it had no caustic action at all, and never caused the formation of crusts that retained the secretions. It is this latter quality, in my opinion, that rendered the occurrence of suppurative adenitis such a rarity.

Dr. Emerich Ullmann, lecturer on surgery at the University of Vienna, writes as follows under date of May 25, 1897:

"I can report that I have had the most beautiful results with xeroform in tuberculous ulcerations. The action of the remedy is the same as that of iodoform; but it is distinguished from it by the absence of the penetrating and disagreeable odor of the latter drug."

CONCERNING CREOSOTAL.

By DR. PAUL JACOB.

During the course of the past year, from April 1, 1896, to April 1, 1897, the author has treated a large proportion of the 103 cases of phthisis pulmonum that occurred in his clinic with creosotal. This is a thick oleaginous substance containing over 90 per cent. of pure creosote, and free from the nauseous odor and burning taste of the plain drug. These latter qualities, as well as other advantages which have been thoroughly detailed elsewhere, were the reasons that determined him to employ the remedy so freely in the place of the older creosote preparations. The disagreeable by-effects incidental to treatment by these latter, more especially the marked disturbance of the gastro-intestinal canal, the great loss of appetite with its consequent deterioration of the general condition, are, according to the reports of various authorities upon the subject, entirely absent in creosotal.

The usual dosage in the first medical clinic was: In the beginning five drops of pure creosotal three times daily, increased daily by the addition of three drops to each dose until 25 drops were taken thrice daily. At this height it was maintained for from one to four weeks; in isolated cases for several months. Then the dose was gradually diminished down to 10 drops three times daily by similar stages, and then increased in the same way up to the maximum dose again, etc.

Special attention was paid to the diet during the treatment. This consisted chiefly of one and one-half to two litres (one and one-half to two quarts) of milk, two to six eggs, oatmeal, cocoa, potato soup and malt extract, with vegetables and bread in sufficient quantity and proper form each day. Each patient was carefully weighed at intervals of eight days. Appropriate diet books, in which the patients themselves recorded the food that they took, enabled the attending physicians to ascertain and regulate its quantity and quality.

Each observation was begun by a careful search for tubercle bacilli, when sputum was obtainable, so as to absolutely settle the diagnosis. In the few cases in which no sputum could be obtained, the results of physical examination and the history of the patient were such as to leave no doubt as to the correctness of the diagnosis. Physical examinations were repeated every week, and were carefully recorded.

Of the 50 cases treated with creosotal 28 remained sufficiently long under observation to be of value.

The entire 28 cases may be classified as follows: Treated with good results, 11; with fair results, 16; with no result, one. This last case the author cannot explain.

In all the other cases good results were obtained, although with most of the patients the time of treatment fell in the fall and winter months, and the treatment could not be aided by the hygienic influence of fresh air. The colds so frequent in phthisical cases at these seasons retarded the progress of some of the cases; and they seemed to occur in just the cases that were being markedly benefited by the treatment.

The general condition improved visibly in 25 of the cases. Case No. 5 said, after taking 60 grams (two ounces) of creosotal, that she had not felt so well in 14 years; the fever, night sweats and feelings of weakness entirely disappeared after six weeks of treatment. In only three of the cases did the subjective condition remain bad.

In not a single case did the creosotal have any permanently injurious effect upon the appetite. In five of the cases creosote, given by others, had caused complete anorexia; under creosotal their appetite increased from week to week. In 17 other casese there was the same result; and the six cases that had a good appetite when the treatment was begun, preserved it undiminished during the administration of the remedy.

The body weight was in most cases correspondingly increased. In 16 cases the gains were up to 12 pounds; in three cases there was neither loss nor gain, and in five other cases there was a loss of from one to two pounds.

Creosotal had a very favorable effect upon the night sweats and upon the fevers. The former always disappeared in a short time, and the latter were recalcitrant in only one case.

Cough and expectoration disappeared entirely in four cases, and in four others there was no change at all. In all the remaining cases there was marked improvement in these symptoms.

With regard to the administration of creosotal in children the author's experience is limited to two cases. In these two, however, it was very effective. He began with a dose of one drop three times daily, maintained for six days, and then gradually increased up to ten drops thrice daily.

The phthisical diarrhoea was favorably affected by creosotal. No new attacks of diarrhoea occurred during its administration in tubercular patients. Jacob's observations agree with the most recent reports upon that phase of the drug's action, more especially with that of Eschle made from the laboratory of the late Professor Baumann. Eschle found that in other intestinal affections, and more especially in those occurring during the course of typhoid fever, creosotal was to be warmly recommended as an intestinal disinfectant which traverses the entire canal, and is capable of thoroughly cleansing it.

The influence of the remedy upon the physical signs does not at first seem to have been a very marked one; yet in most cases in which the treatment extended over a period of six months or more, more or less improvement was noted. In two cases, Nos. 4 and 9, the physical signs of phthisis disappeared entirely. In six cases there was a marked, and in six others a moderate retrogression in the local processes. In eight cases the physical signs remained stationary, and in the five last cases they became worse during the time of treatment. The author proposes to make further investigations on the patients that have remained under observation to determine whether the creosotal exercises any specific influence upon the tubercle bacilli, or whether it stops the local inflammatory processes.

In conclusion the author states that his observations are in general in accord with the results obtained by other investigators. In spite of the danger of being too optimistic in regard to a disease so changeable as phthisis, the author firmly believes that his observations show a specific action of creosotal in it. The influence upon the fevers and night sweats, which is the ordinary criterion of the effect of an antiphthisical remedy, was very marked. Moreover a number of the patients had been under treatment with other forms of creosote, etc., before they came under his care, and had been rather harmed than benefited; whilst under creosotal they immediately began to improve.

Every case of beginning or not too far advanced phthisis can be benefited by creosotal. Naturally it must be aided by an appropriate dietetic and hygienic course. And it is the especial advantage of creosotal as compared with creosote that by reason of its favorable influence upon the appetite and non-disturbance of the functions of the gastro-intestinal canal a proper dietetic treatment can be fully carried out.

—Berliner Klinische Woch.

CITRATE OF SILVER.

At the Twelfth International Medical Congress, in the Section of Surgery, August 23, 1897, Professor Crede, of Dresden, reported in substance as follows: After long experimentation he had found that the citrate of silver best fulfilled the conditions required of an antiseptic for the treatment of wounds. His opinions and the results that he has obtained by the method had been published, and were well known. Crede then considered the use of silver in certain infectious diseases. The fact that the citrate of silver greatly diluted is soluble in the serum of the blood and is non-poisonous suggested to him the possibility of its use for the general disinfection of the body. The subcutaneous injection of 0.5 gram (7 1-2 grains) of lactate of silver occasioned aseptic necrosis of tissue; hence silver could

not be used in that form. After overcoming many difficulties Crede succeeded in obtaining a metallic silver preparation which was permanently soluble both in water and in albuminous fluids. When this preparation is inuncted in the form of a salve for from 15 to 30 minutes it gets into the lymphatic channels and circulates dissolved in the body. In sterile lymph and sterile blood it remains in the condition of metallic silver. In the presence of pathogenic germs or of toxines it enters into some as yet unknown combinations, and acts either as a bactericide or as an antitoxic agent. The use of the silver preparation causes no local changes. Crede and the physicians associated with him treated over 100 cases affected with the most varied septic diseases with the remedy. The first inunction was made in the evening, and the second upon the following morning, and no other measures were employed during this time. The amount of the salve used in the adult was as a rule three grams (45 grains); for boys two grams (30 grains), and for little children one gram (15 grains). The inunctions were practiced upon a part of the body far removed from the site of the disease. Lymphangites, phlegmons, septicemias, phlegmonous anginas and septic complications of scarlatina and diphtheria were treated. In all the cases a remarkably favorable effect was apparent in from five to 30 hours. The general condition improved; the fever fell within 24 hours, and rapid retrogression of the septic process set in. Almost hopeless cases rapidly improved. In cases of erysipelas the mixed septic infection got well, though the skin lesion persisted. Crede believes that the preparation is a remedy of the very greatest importance, being capable of disinfecting the entire body; and affirms that it is one that has never failed him in septic cases.

—Deutsche Medicinische Wochenschift, October 28, 1897, p 211.

Jesse Moore Old Kentucky Bourbon or Rye Whisky is a standard of excellence; pure, old and ripe. Send for samples and prices. Jesse Moore, Hunt Co., Louisville, Ky.

THE TREATMENT OF ENDOMETRITIS.

One of the chief aims of treatment in cases of endometritis is to employ measures which will contract the distended vessels in the mucous membrane of the uterus, to re-establish normal circulatory conditions, and thus favor the absorption of exudates in the tissues. These cases often come under the observation of the general practitioner at a time when a cure can be accomplished by efficient topical medication, without the necessity of resorting later to curetting or the application of caustic application to the uterine mucosa. Formerly medicated vaginal tampons were much employed for this purpose, but recently a more convenient, agreeable and serviceable means has been presented to the profession in the form of a wafer. Micajah's medicated uterine wafers combine all the advantages of the medicated tampon with a number of special properties. They are much more readily applied than the tampon, so that part of the treatment can be intrusted to the patient, and their application is therefore to be preferred, both on the score of cleanliness and convenience. Aside from these obvious advantages, however, they are composed of ingredients, all of which exert an antiseptic, alterative and healing effect upon the inflamed uterine mucous membrane. Under their continued use the congestion gradually subsides; the engorged vessels assume their normal calibre; the mucous secretions disappear, and exudates are absorbed. But even in cases where the process is so far advanced that operative measures are called for, the medicated wafers will be found an extremely valuable adjunct in the treatment.

TREATMENT OF ACUTE URETHRITIS.

Since the discovery of the specific organism of gonorrhoea, the gonococcus of Neisser, the antiseptic treatment of this disease has been established upon a firm scientific foundation. Among the urethral antiseptics the nitrate of silver would rank

very high if it were not for its many disadvantages, especially its irritating effects, even in weak solutions, and its property of being readily decomposed and precipitated by the secretions, thus impairing its activity as a germicide. For this reason a number of silver compounds have been introduced in late years, none of which has, however, been completely free from these disadvantages. Lately, Dr. Eichengrun has prepared a silver compound, named protargol, in which the objectionable features of the other silver preparations have been entirely eliminated. Protargol is a firm combination of silver, with a proteid base, and is unaffected by alkalies, sodium chloride, albumin, or other substances which decompose and precipitate other silver compounds. For this reason it is not decomposed by the urethral secretions, and, therefore, exerts a more penetrating action than other urethral antiseptics. While an efficient germicide, it is free, however, from any irritating effect upon the mucous membrane, and is indicated even in the most acute stages of gonorrhoea. The experiments made by Professor Neisser and Drs. Goldenberg, Barlow and Benario have shown that it is an ideal remedy in the treatment of cases of acute and chronic gonorrhoea of the anterior and posterior urethra, causing a rapid disappearance of the gonococci and a prompt cure. Protargol is employed in 0.25 to 1 per cent. solutions in water, in which it is readily soluble, either by the method of injection or irrigation. In preparing these solutions it is advisable to stir the powder into a paste before adding the rest of the solvent.

CONVALESCENCE FROM TYPHOID FEVER.

In convalescence from this most prostrating disease, it is confidently asserted that "Gray's Glycerine Tonic Comp." formula Dr. John P. Gray, is an unequalled restorative.

It is compounded with especial care of the choicest materials, and is a preparation of an unalterable character wherein the harmonious action of each ingredient is guaranteed.

It does remarkable service in promoting healthy stomachic conditions, checks, fermentation, stimulates the nutritive functions, and thus restores tone to the entire system. It also promotes glandular secretion, a matter of much importance, and soon puts the patient in a condition to resist complications.

Its taste is grateful and inviting, and to the debilitated subjects of this disease it is refreshing and satisfying without producing any over stimulation.

The tendency to contract colds during convalescence is averted owing to its favorable action on the respiratory system.

It furthermore does not constipate and causes no unpleasant reaction whatever.

Constituents: Glycerine, Sherry Wine, Gentian, Taraxacum, Phosphoric Acid, Carminatives.

Doses:—Adults, 2 teaspoonsful to a tablespoonful in a little water before meals, t. i. d. (or after meals when preferred.)

Children, ½ to 1 teaspoonful.

To quench thirst: a teaspoonful in a half-glass of water. There is nothing better.

The Purdue Frederick Co., sole proprietors, No. 52 West Broadway, New York.

INVERSION OF UTERUS; DANGERS OF MASSAGE IN LABOR.

Sjoberg reports two cases of fatal puerperal inversion of the uterus. The first patient was a four para, aged 26. Spontaneous delivery occurred somewhat speedily, and the placenta came away "without any forcible traction on the cord" according to the midwife's account. Sjoberg found the patient dying; the uterus was completely inverted. He replaced it with the greatest ease, but the woman died ten minutes later. This appears to have been a mismanaged case of precipitate labor in a vigorous subject. The second patient was an anemic unipara. Labor up to the delivery of the fetus is reported as normal. The placenta,

however, did not come away; only the most gentle traction seems to have been exercised on the cord; then the fundus uteri was submitted to massage. The whole uterus became inverted. As in the former case, Sjoberg arrived too late; the patient was already collapsed, and though the womb was easily reduced, she died soon afterward.

—Hygiea, p. 348, 1897.

THE STATISTICS OF THE SERUM TREATMENT OF DIPHTHERIA.

Photiades shows that recently endless confusion has arisen in the study of diphtheria. In place of Trousseau's clinical classification of sore throats into true diphtheritic angina as opposed to toxic, infective and malignant angina, the presence of Loeffler's bacillus is now sufficient to fix the diagnosis of diphtheria. To adapt the new facts of bacteriology to one's clinical knowledge becomes more and more difficult. For instance, Gouguenheim finds diphtheria to be much more common in adults than is usually supposed; besides, in its membranous form it occurs commonly as lacunar tonsillitis. He says every acute case of sore throat should be examined bacteriologically for fear of missing diphtheria. A harmless catarrhal angina may reveal Loeffler's bacillus (Gahli and Deucher). There are typical and atypical Loeffler's bacilli; typical but not virulent pseudo-diphtheritic bacilli (Park). Virulent Loeffler's bacilli may cause a local noncontagious disease, fibrinous rhinitis (Scheinmann). The pseudo-membrane, formerly the clinical and pathological criterium of diphtheria, is not a product of a specific bacillus, but may be produced by streptococci, staphylococci, or the bacterium coli. The B. diphtheria is hardly ever present alone (Danelo and Rualt). Severe septic diphtheria is not caused necessarily by an associated infection, for in some cases streptococci cannot be found in the internal organs, and when they are, the symptoms during life may not have pointed to septic diphtheria at all (Kuttner and others). After all this it is not surprising that statistics have been made to prove (1) that the serum treatment has almost suppressed mortality; (2) that since this treatment was begun the mortality is as high as ever. Thus, without considering the conflicting statistics of individuals, it has been shown that the serum has increased the mortality at Trieste, St. Petersburg, and Moscow, has diminished it enormously at Paris, Berlin, Vienna and Budapest, and has had no influence on it at Leipzig, Milan and London. In America, Coakney has shown for Boston, New York and Brooklyn (1) that the declared cases of diphtheria have increased enormously; (2) that though the relative mortality (percentage of declared cases) has diminished since the serum treatment, the absolute mortality calculated on the total population is as high as in the worst years since 1882. Though the public demand that every clinician should have an opinion as to the value of serum, either for or against, statistics are perfectly useless up to now in helping him to form one. He must, therefore, fall back on his own resources, which are those of clinical empiricism. It is enough for him that the serum acts, and that chance has been excluded from the cases where it succeeds; that is, he must consider the individual, not masses of statistics. No one who has seen the membrane clear up, the natural voice return if the nares are involved, and convalescence begin within forty-eight hours in a case which experience shows to be very severe, can doubt the good done by the serum. Its failure in certain cases is no reason for doubting its use. Everything points to the fact that diphtheria toxins vary greatly in virulence, and it is possible that bacteriology may prove eventually that some diseases, considered absolutely specific, are not so. For this, theories of bacterial symbiosis have prepared us, and Windrath has shown that there is nothing specific in the toxins of specific bacteria. It accords with this that the author has often used the serum in cases which were clinically severe diphtheria, but where bacteriology showed streptococci to be in the majority, with as much suc-

cess as in those caused by Loeffler's bacillus alone.

—Arch. Generales de Med., January, 1898.

THE ACTION OF ATROPINE AND PILOCARPIN ON PERISTALSIS.

Traversa being struck by the fact that injections of atropine caused constipation rather than increased emission of feces in horses, has investigated the action of this drug and also of pilocarpin. It was found that pilocarpin accelerated and strengthened peristalsis, while atropine lessened and finally abolished the movements of the intestine. In each case the result is obtained through paralysis or stimulation of the ganglia and nerve endings in the intestine. From this it follows that belladonna is not likely to be of value in constipation from atony of the bowel muscle, but in lead colic where it is not improbable that the intestinal ganglia are irritated belladonna may prove a useful remedy, and indeed in all cases when painful intestinal spasm, due to irritability of the intestinal ganglia, is present, the drug in question may be used with advantage.

—Il Policlin, November 15, 1897.

THE TREATMENT OF CHRONIC APPENDICITIS BY MERCURY.

Horwitz reports four cases of chronic appendicitis, in each of which operation was clearly indicated, and had been advised by several eminent surgeons. This was refused by all the patients, each of whom came under the author's care for secondary syphilis, and was put on "tonic" doses of protoiodide of mercury. Case 1, male, aged 44, had had nine attacks of appendicitis, one quite recently. There was a tender indurated mass in the right iliac fossa. Soon after the mercury treatment was begun he had a fresh acute attack of appendicitis, when the mercury was given up for a time. After the cessation of the acute symptoms it was resumed, with the result that not only the syphilitic symptoms disappeared, but also the appendicitis and constipation. Four years have passed since then, and there has been no return of the appendicitis. Case II, male, aged 31. Three attacks of appendicitis; has dyspepsia and chronic constipation. He had a slight acute attack of appendicitis after a year's treatment with protoiodide of mercury. Since then (two years and a half) has no trouble with the appendix. Case III, male, aged 28. Five attacks of appendicitis; doughy, tender mass in right iliac fossa. Protoiodide of mercury given. Health improved, and since then (three years and a half) appendix has given no trouble. Case IV, male, aged 33. Two attacks of appendicitis, and suffers from dyspepsia and constipation. Signs of chronic appendicitis in right iliac fossa. Protoiodide given up till now (one year and a half). Has had two attacks of appendicitis while under treatment, though none since last June. The author says it is remarkable for the chronic form of appendicitis following acute attacks to subside under small doses of mercury, and, though these cases are too few to arrive at definite conclusions, he thinks it well worth while for others to test the treatment in all cases of chronic appendicitis where operation is refused.

—Annuals of Surgery, January, 1898.

ST. LOUIS LARYNGOLOGICAL AND OTOLOGICAL SOCIETY.

On December 27 the St. Louis Laryngological and Otological Society was formed, composed of those physicians of St. Louis who limit their practice to the treatment of diseases of the nose, throat and ear. Dr. J. C. Mulhall was elected president, Dr. J. B. Shapleigh vice president, Dr. F. M. Rumbold secretary and Dr. A. S. Barnes, Jr., treasurer, for the year 1898. Meetings will be held monthly, and it is expected that the scientific programmes furnished will be highly instructive and interesting. While the membership is limited, the privilege of inviting professional friends is reserved to each member.

A BEAN IN THE LEFT BRONCHUS OF A CHILD.

Klein, Thilges and P. Koch record the case of a boy 9 years old, who while laughing and playing with his

comrades drew into his larynx a bean which he was holding in his mouth. A severe suffocating attack followed, but passed off entirely in a few minutes. A day afterward, however, the boy complained of oppression in the chest and was feverish. It was found that the left half of the chest was not working well and that there was pulmonary dullness over the left lung. The right side was normal. It was therefore concluded that the bean had passed into the left bronchus. Tracheotomy was advised, but was refused by the child's parents. During the following night there was a second attack of suffocation, during which the impact of the bean against the glottis (bruit de drapeau) was distinctly heard, while a finger placed over the trachea could clearly feel the scraping sensation (bruit de grelottement) caused by the foreign body ascending and descending in the tube. Several similar attacks—a hundred according to the parents—followed, and finally, six days after the accident, permission for tracheotomy was given. When the trachea was widely opened the bean, in no way decomposed, was quickly expelled. It measured 11 mm. by 8 mm. and 6 mm., and could only have passed through the larynx under one set of circumstances. Of course it had become swollen during its stay in the respiratory tract. It was noteworthy that it passed into the left bronchus, for it is more usual, from anatomical reasons, for foreign bodies to get into the right. The child made a good recovery.

—Bull. de la Soc. des Sc. Med. du Grand Duche de Luxembourg, p. 91, 1897.

APHORISMS.

(A Long Way After Hippocrates).

1. Life is short, the curriculum long; examiners treacherous, tips fallacious; fees exorbitant, diplomas valueless.

2. Of making many treatises there is no end, and a superfluity of lectures causeth ischial bursitis.

3. Whoso seeketh appointments seeketh grief and heart-burning, for the thyrsis-bearers are many, but the inspired few.

4. The art consists in three things —the disease, the patient and the house-physician.

5. He that would acquire a competent knowledge of medicine ought to be possessed of the following advantages: Natural ability, competent instructors, favorable conditions for study, early tuition, idomitable perserverance, ample capital.

6. General practice is harassing, specialism lucrative, midwifery laborious, life assurance responsible, hospital measures radical.

7. Dentistry is golden, ophthalmology cleanly, throat-work sanguinary, otology circumscribed, practice debasing, hygiene elevating, clubs demoralizing.

8. Whoever would prosper in private practice must first master all these: Must possess presence of mind, gentlemanly manners, true sympathy, an iron constitution, an even temper, a head for figures, knowledge of a human nature, a devoted wife.

9. The successful practitioner understands three things—the digestion of infants, the nervous organization of women, the infirmities of age.

10. The physician is a frequent worshiper in the temple of the dead, but the surgeon's memory for mortal cases is ephemeral.

11. The physician recognizes the limits of his art, but the surgeon discredits himself by attempting the impossible.

12. A scientific operation requires three conditions—accurate diagnosis, carefully-planned details, patient nursing.

13. The most acute cases are those which are suitable for the surgical wards; the next most acute are suitable for the septic wards; after these come cases suitable for clinical; then those suitable for the medical wards; cases more chronic than these are cases suitable for another hospital, and if there be any others yet more chronic than these they are eminently fitted for a parish infirmary.

—Guy's Hospital Gazette.

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Original

CARDIAC DEBILITY, ITS PROPER MANAGEMENT AND RATIONAL TREATMENT.

J. J. MORRISEY, A. M., M. D.
Visiting Physician to St. Joseph's Hospital.

Our ideas concerning the proper management of valvular lesions of the heart have undergone considerable modification within the past decade. The time is no so far distant when every murmur was regarded as a pathological entity which must be overcome at all hazards, and even yet, there are to be found practitioners to whom the presence of a murmur is full of evil portent irrespective of its causation or consequences.

A more intelligent consideration of the causative factors which are adduced as being of primary importance in the production of cardiac affections, has long since taught us that valvular lesions are in themselves irreparable, and only assume an importance commensurate with their magnitude when the valves fail to perform their proper functions.

While thorough compensation persists, there is no necessity for active interference, and the wise and conservative physician simply safeguards the general condition of the patient, fully recognizing that the inevitable day will come when the disabled heart will require assistance; when the left heart will undergo hypertrophy and dilatation, and the backward pressure of the blood influences the pulmonary circulation, causing congestion, oedema and rupture of the vessels with the concomitant dyspnoea and cough. These pathological conditions frequently producing changes in the lung substance itself and, still progressing, affects the right heart, its ventricle and auricle also becoming involved, and beyond that again the peripheral vessels participate in the general interference with the circulation, the liver becomes affected, the impairment of its blood supply causing direct and sympathetic disturbance with various other near and remote organs, the stomach and intestines being included in the general stasis, disturbing the processes of digestion and nutrition, thereby increasing the general wave of malassimilation which controls the

system. Other changes are found in more distant organs, the spleen, for example, becoming enlarged and the blood in consequence suffering deterioration, the kidneys are congested, and as their functional activity becomes increased to meet the new and unlooked for demands produced by the retrograde modification of the tissues in general, albuminuria and other material foreign to the real excretion of these organs disclose themselves, while finally the serous cavities, particularly the peritoneal, become dropsical and unable to perform their proper functions. Truly, a most formidable presentation of symptoms, and one demanding the most refined skill and the highest resources of therapeutic art to combat. It cannot be too strenuously insisted that in the treatment of cardiac affections each individual case should be judged on its own merits. This statement is particularly applicable to the loose and thoughtless manner in which certain drugs are used for every form of disease of the heart, and can be more especially applied to the wide administration of digitalis. There is probably no drug in the entire sphere of our therapeutic remedies which is of such great value in certain lesions, but it has its definite limitations as to time and dosage, and the intelligent appreciation of one and the discriminating use of the other will mark the careful practitioner. It is not too strong an assertion to make when it is stated that digitalis has done almost as much harm in the hands of some physicians as it has done good under the guidance of others. It is at once a poison, and at the same time one of our best therapeutical aids, but its indiscriminate administration is to be deplored. We will return later on to a consideration of the efficiency of digitalis.

When a man passes some 20 or 30 years of his life with a compensated hypertrophy, and suddenly, or gradually, as the case may be, feels himself incompetent to perform the ordinary functions of life without great distress, there should be no hard or fast rules to guide us in arriving at the best and most appropriate treatment for his individual case. One of the leading principles which should guide us will be his answer to the question: "What mode of life have you been following?" Mitral incompetence will not be sufficient to embrace the case in its entirety. There must be some other reason adduced to account for the lack of strength. Is it the excessive use of alcohol, or prolonged muscular exertion, or tobacco, or in women the too generous use of tea and coffee. These unquestionably have a detrimental effect upon the dilatation, if they are not indeed direct cardiac poisons, when used excessively. Severe nervous shock is apt to be a powerfully disturbing factor, irrespective of the nature of the experience, whether it be pleasant or painful. This can be more truthfully applied to men advanced in years, who indulge in the pleasures of Hymen. Their desires outrun their judgment, oftentimes to their lasting detriment, if they do not at once precipitate an ominous collapse. Any intercurrent affection that is liable to disturb the equilibrium existing between the heart and the circulatory system must be carefully treated by timely and energetic medication. Here it is that the vis a tergo must be sought after and adjusted in order that the physiological balance may be in part at least restored.

How irrational it would appear then to follow any routine treatment that has for its sole purpose the consideration of the condition of the heart alone, and totally disregard the demands of the entire system? Frequently, remedial measures which have for their object the general nutrition of the system will have a most beneficial effect upon the heart, when the quiescent state of the valvular cicatrix is disturbed by any of the causes given above, and the condition of hypersystole begins to lose its force and strength, finally developing into what Huchard calls hyposystole.

It is in this condition, when the pre-existing hypertrophy is being undermined by structural degeneration, and the muscular walls are

yielding, that we find the numerous sequelae, which were described in the first part of this paper, and which follow one another with startling rapidity, if not interrupted and stayed in their progress by rest and the resources which nature has placed within our power.

One of the most prominent factors in the treatment of dilatation, where the imperfect reparative capacities of the cardiac muscle are not equal to the ordinary demands of everyday life, is rest, both of body and mind. Oftentimes this is sufficient in itself to generate more power and strength in the heart than any other therapeutic measure. The heart straining under the heavy duties imposed upon it has been gradually sinking beneath its weighty tasks, but the moment there is a cessation of physical labor it regains a great deal of its old-time vigor. Physiology teaches us that in an ordinary day's labor of eight hours a man's output of muscular energy (Foster) equals 150,000 kilo. m., according to Landois and Stirling, 288,000 kilo. m. The ordinary work of the heart according to Foster amounts to 75,000 kilo. m., and according to Landois and Stirling 86,970 kilo. m. By the addition of these various figures we find that the total output of muscular energy, as the heart's action is increased when under strain, will be according to Foster's computation considerably over 220,000 kilo. m., and according to Landois and Stirling over 375,000 kilo. m. It is easy to perceive then what a remarkable conservation of energy exists when the first element in our computation ceases to be a factor, namely, the 150,000 kilo. m. by placing our patient in bed, with complete relaxation of the muscular system. This has a most beneficial action upon the heart, and it rapidly responds to the more favorable environment, while its work naturally becomes less onerous and repressive.

The beneficial action of rest is recognized, too, in the case of the professional man—although his occupation is mainly of a sedentary character, and consequently but little energy is dissipated, yet the whole nervous system responds quickly to the rest given to the mind, and reacts favorably upon the cardiac enhaustion. But it is in the first class of cases that rest gives the most favorable results, as it is demanded earlier than in the case of the professional laborer. In the latter intense occupation is apt to be intermittent, and long periods of relaxation are enjoyed; in the former the labor is continuous and excessive. There is another element which, though almost intangible in character, may exercise a most beneficial influence in the prognosis of cardiac affections, and that is the spirit of hope created by the favorable advice of the physician. The woe-begone countenance presented by the patient who deems himself irretrievably doomed, the inactivity that characterizes every movement and adds to the generally debilitated condition we find in certain forms of heart lesions, the consequent impairment of the digestive functions adding materially to the accumulation of waste material in the circulatory system with the added demand for extraordinary labor on the part of the already enfeebled kidneys, and their retroactive effect upon the muscular tissues of the heart—these are a few of the many effects which are intensified by the issuance of the dictum that there is no hope. This is not a picturesque description, but an accurate delineation of what is met with in everyday practice. Buoyed up with the hope that he may live for many years of activity and usefulness, with proper care and precautious, and you convert the morbid, gloomy and disheartened patient into a useful citizen, whose heart quickly responds to the renewed vigor instilled into his system from the fact that he is not to die soon and quickly. On the contrary the attention which those afflicted with types of chronic disease bestow upon their health frequently tends to a greater prolongation of life than among those who have no such safety valve to guard their systemic forces.

Diet.—The restriction of the diet to the normal demands of the system should be most carefully considered.

There is generally to be found in those patients suffering from "ruptured compensation" many of the more characteristic symptoms which accompany aggravated indigestion. The whole alimentary tract demands careful treatment, for when physiological metabolism becomes pathological, suboscidation takes place, and as the circulation of the blood is already defective in its normal amount of oxygen, by the existing condition of lessened heart power, the secretious are rendered imperfect, toxines are generated and auto-intoxication adds its many evils to intensify the lack of balance already displayed. The chief point to be remembered is to keep the quantity of food within the limit of the oxygenating capacity of the individual, and as, in many persons leading sedentary lives and afflicted with various cardiac affections, the intake is greater than the output, the regulation of the alimentary functions is one of the most prominent remedial measures. The more effete material generated and retained within the system the greater the disturbance of the normal functions, and as the liver shares to an important degree in this disorder its activity becomes impaired, and finally the kidneys share in this participaton of the general effort to cast off the by-products of incomplete oxidation, all of which react upon the weakened heart and augment the labor it is striving to fulfill. One can readily see then how exceedingly important it is to properly regulate the diet, and at the same time produce a continuous, slight stimulation of the bile, which, by its strong antiseptic properties, antagonizes the fermentative powers of the by-products produced by malassimilation.

Where the intake is greater than the output abnormal demands are made upon the organs of excretion, and this added labor still further impairs their activity, and in consequence the elimination of toxines, whose retention in the system serves to maintain contraction of the arterioles and intensify peripheral resistance, is restricted. By such a simple remedial measure as the administration of warm water toward the end of gastric digestion much may be accomplished, for it produces free diuresis without impeding the heart's activity. The more perfect the intestinal asepsis the less vitiated material is generated.

A general survey of the whole alimentary system is essential in these cases, and the application of such therapeutic measures as serve to antagonize the production of fermentation forms a necessary part of the treatment. This statement is especially applicable to women of a neurotic type afflicted with cardiac disease, in whom indigestion is very prone to occur.

Restraining these toxic products of their inhibitory influences on the process of digestion, maintaining the weakened system at the highest possible maximum of strength, stimulating the glandular parts to active participation—these are a few of the means necessary to be adopted in order that we may assist the heart to cope with its numerous trials. The more perfect the digestion the greater the energy created, the less obstruction offered to the normal circulation of the blood through the brain and nervous system, and work, mental and physical, is a pleasure, while life seems well worth living. It is not so much then the quantity as the quality of the food that should guide us in the selection of the nutriment most suitable for those cases suffering from loss of integrity in the heart muscle. The amount of nitrogenous material should be equivalent to the absolute demands of the system, and the closer we approach this standard the more perfect will be our results. There is as much, if not more, injury done in giving too much food than in properly restraining the amount. In the case of the laborer, who is compelled to maintain the recumbent position on account of a cardiac affection, the reduction of the diet should be gradual, as otherwise the general decline of his physical forces may react unfavorably upon his heart. It appears to me that the judicious administration of suitable food is oftentimes of more importance than the mere supply of so-called cardiac tonics. If as much attention was given to the organs below

the diaphragm as to those above that muscle, in the treatment of cardiac lesions, our results would be more favorable. Aside from the ingestion of the warm water noted above, which, on account of the rapid diuresis produced does not have the effect of keeping the blood at a high level, the drinking of large quantities of liquids at meals is to be absolutely interdicted. The more closely we approach the dry diet advocated by the late Sir Andrew Clark and Professor Oertel, of Munich, the greater the improvement.

The question of the proper kind of diet to be adopted in these cases has not met with the consideration in the past which its importance demanded. Our attention has been swerved in another direction in the control exercised by the resources of therapeutics. But in the majority of instances far and above all medicine is proper diet and prolonged rest. Pastries of every description are to be carefully avoided, as they generate flatulency and add to the already well-developed hypersensitive condition of the alimentary tract. Where the integrity of the heart muscle is not sufficiently impaired to demand absolute rest much may be gained by exercise, moderately and judiciously taken, which has for its object the development of the voluntary and involuntary muscular system, a modification of Oertel's hill climbing, which is only adapted for a limited and selected number of cardiac debilities, as for example in fatty infiltration accompanied by general obesity, where such a system cannot be too strongly recommended. There are other forms of exercise which are highly regarded by some physicians as contributing, not only to the comfort of the patient, but also giving tone and strength to the heart, at the same time reducing in a marked degree the area of cardiac dulness. In that category may be enumerated (1) the passive exercises so highly lauded by our colleagues abroad and originally introduced in Sweden by Ling and his followers. The exercises begin with movements of the arms, whose object is the expansion of the chest. The patient while undergoing these various manipulations remains perfectly passive. Then kneading and rolling movements of the feet in succession, followed by kneading of the muscles of the calf and thigh with flexion of the knees and rotation of the hips. The arms and hands are similarly treated, while the abdomen is gone over thoroughly. Then follows tapping of the surface of the precordial region, but not at any time producing pain; finally the spinal column is thoroughly manipulated.

In selecting cases for the administration of these movements a thorough examination of the cardiac region should precede their application, for they are a positive injury to some "weak" hearts. But where the patients are properly chosen and the exercises not too prolonged, they have the most beneficial effect (1) in reducing the area of cardiac dilatation; (2) in improving the character of the sounds, and (3) in causing a sensation of well-being so that the patient is anxious for their continuance. To those who have met with disappointment, in their expectations of the relief to be afforded, it has been mainly owing to a lack of appreciation of the circumstances controlling each individual case. They are no more adapted to all conditions of heart affections than is digitalis. The object of these different massage movements is to squeeze the blood along the veins in the direction of the heart and at the same time increase the amount of blood in the capillaries of the muscles, thus relieving the heart. The movements of the chest furthermore favor the flow of b lood from the veins into the heart, while the direct mechanical stimulation to the precordial region undoubtedly has an excellent influence upon the heart itself.

Dr. Lauder Brunton, the eminent English physician, in the course of his investigations into the beneficial action exercised by the Ling series of movements, has formulated the following conclusions: (1) During the massage of muscles the flow of blood is increased; (2) immediately after the cessation of massage an accumulation of blood occurs in the massaged muscles; this is rapidly

followed by an increased flow through the muscles, and (3) the massage of a considerable muscular area causes at first slight rise in the general blood pressure; this is followed by a fall, which, in some cases, amounts to about one-fifth of the initial blood pressure. The idea and practice that form the basis upon which these manipulations are established are, that as the muscles have as large a circulation of blood as the skin and internal organs together, their stimulation must necessarily relieve the over-distended heart and give it an opportunity of recuperating its enfeebled forces. And unless the changes are of such an irreparable character as to be beyond recall—and this is the class of cases where no decided benefit can be attained—a marked improvement will take place by a continuance of the movements.

Another method has come into vogue of late years consiting of carefully-regulated movements attended with little exertion and no fatigue. These are known as the Schott method. Dr. Thorne in his work on "The Schott Methods of the Treatment of Chronic Heart Disease," has laid down the following rules, which should guide us in our adoption of this method.

(1) Each movement is to be performed slowly and evenly—that is, at a uniform rate.

(2) No movement is to be repeated twice in succession in the same limb or group of muscles.

(3) Each single or combined movement is to be followed by an interval of rest.

(4) The movements are not allowed to accelerate the patient's breathing, and the operator must watch the face for the slightest indications of (a) dilatation of the alae nasi; (b) drawing of the corners of the mouth; (c) duskiness or pallor of the cheeks and lips; (d) yawning; (e) sweating; and (f) palpitation.

(5) The appearance of any of the above signs should be the signal for immediately interrupting the movement in process of execution, and for either supporting the limb which is being moved or allowing it to subside into a state of rest.

(6) The patient must be directed to breathe regularly and uninterruptedly, and should he find any difficulty in doing so, or for any reason show a tendency to hold his breath, he must be instructed to continue counting in a whisper during the progress of each movement.

(7) No limb or portion of the body of the patient is to be so constricted as to check the flow of blood. These movements with limited resistance appear in carefully selected cases to intensify the benefits accruing from those of passive resistance, and may be applied in the advanced cases of weak heart even when accompanied with the secondary consequences of heart failure, as the presence of anasarca and ascites.

Physiologists claim that bodily exercise in moderation increases the quantity of carbonic acid exhaled to about one-third more than during rest, and for about an hour after exercise the volume of the air expired in the minute is increased about 118 cubic inches, and the quantity of carbonic acid about 7.8 cubic inches per minute (Kirke). Thus we have one of the many reasons why the Schott system should receive the hearty support and warm acknowledgement it does from those who have given it a fair trial. The muscular exertion required, even though slight, increases the rate of breathing, strengthens the heart's action. flushes the peripheral vessels and favors perspiration, and as noted above, the output of CO^2 is increased, while the intake of large amounts of oxygen has a decidedly beneficial effect upon the muscular system. During the contraction of the muscles there is a reduction in the amount of peripheral resistance, an increase in the size of the vessels, a fall of pressure, a diminution in the congestion of the venous system,with a corresponding greater flow of venous blood into the right cavity of the heart. The heart muscle in time participates in the renewed strength and activity imparted to the muscular system, its systolic force is increased and the propulsive power intensified. We can readily see

from this description how easily and quickly the reinforcement of the muscles may demand too much of the enfeebled heart, so that the greatest care must be exercised not to throw too large a burden on the cardiac muscle, or the consequences may be disastrous.

Baths.—Of late years the baths of Manheim have obtained much note on account of their beneficial action in chronic diseases of the heart. They appear to depend for their efficacy upon the presence of the chloride of sodium and calcium chloride, which are present in considerable quantities. The temperature of the waters range from 80 degrees to 96 degrees F. The higher temperature is advocated for those beginning the treatment, and the duration of the bath is about ten minutes. At first the bath is used on alternate days, afterwards one day is missed in three, and later on one in four days, but the condition of the patient has much to do with the lengthening of the intervals; the bath at the same time being gradually increased to 20 minutes or half an hour, and the saline constituents augmented by the addition of "mother liquor," while the temperature is gradually decreased. After 20 baths are given the patient is subjected to the "sprudel" bath, which consists of the salines and a large amount of free carbonic acid. On leaving the bath the patient, who is generally in an exhilarated condition, is carefully dried and the feet kept warm. Now these baths can be successfully applied with very little inconvenience by adding to a forty gallon bath five pounds of chloride of sodium and eight ounces of calcium chloride, and by the increase of the sodium the baths are made stronger, but it is the combination of salines and CO^2 which render the baths peculiarly effective. As in the system of exercises explained above, so also in the baths the curative effects probably depend upon the diminution of the peripheral resistance, the dilatation of the superficial blood vessels and the consequent improvement in the cardiac muscle.

Cardiac Tonics.—There is no drug in the whole range of therapeutics that is so deservedly held in esteem for its universal applicability in the various forms of heart affections as digitalis. From time to time other remedies are introduced to supersede the place it holds in our affections, but they prove but the "fancies of an idle hour," and are properly relegated to a secondary position. It has been styled the "opium of the heart," but a fanciful designation of that character does not cover the true sphere of its efficacy. When nature is striving to do its best to meet the increased tax upon the heart muscle by adequate hypertrophy, our duty lies in doing everything in our power to assist its work, and this is accomplished not by medicine, but in developing the muscular system, and more especially the respiratory organs. But when the time approaches in which the heart is no longer capable of meeting the continued demands made upon it, when that condition which has been called by the French physicians "hyposystolique" obtains, then we find in digitalis a powerful abettor in aiding the weakened organ to regain a part, at least, of its former vigor and strength, for in its use the heart has a longer stop and better nutrition. There is one very grave objection which has been advanced against the continued use of digitalis in cases of cardiac debility, and it is that the drug contracts the peripheral arterioles, and so raises the blood pressure in the arteries, consequently the weak heart has a greater resistance to overcome. Fothergill, whose researches into the action of digitalis have been most accurate and definite, claims the objection is more apparent than real, and sustains his position by explaining that "one of the sensory nerves of the heart is the vaso-inhibitory or depressor nerve, and when the heart becomes distended in its adynamy, this nerve is in all probability thrown into action, and the terminal arterioles are distended. If this latter condition were not affected by digitalis, the blood pumped more vigorously into the arteries by the renovated heart would still very readily escape out of them, and the

condition of arterial fullness would be unattainable, which, after all, is what we chiefly wish to obtain. Consequently the action upon the peripheral vessels is as important as the action upon the heart; and the effect of the digitalis is to restore the dilated arterioles to their normal calibre, not to set up a condition of spasm." It may be well to add that pathological changes going on in the human system are not always susceptible of physiological explanations.

However, there can be no question as to the utility of digitalis in failure of the heart's strength, by slowing the pulsations, increasing their force and regularity and thereby improving the vascular tension. If too long continued it may produce cardiac exhaustion, by demanding of the heart more energy than it has to bestow. Moreover, toxic symptoms disclose themselves in some persons, evidenced by frequent pulse with small tension, and vomiting, the patient oftentimes showing alarming symptoms of syncope. Whether this be due to personal idiosyncrasy, or to some peculiarity of nerve structure in the ganglia of the heart, it is difficult to ascertain. Personal experience has taught the writer that when the demand for digitalis is demonstrated, it is better, unless the case should absolutely require large quantities, to begin its use in small doses, combined with opium in the form of deodorized tincture. I regard the latter as one of the most serviceable heart tonics to be found in the whole range of therapeutics, and despite the fact that some authors claim it has no action upon the muscular tissue, clinically it seems to have great power in antagonizing the weakening effect of the dilatation. The opium appears to also allay the sensitiveness of the gastro-intestinal tract, and permit of the administration of digitalis in larger doses than if given uncombined.

There appears to be a unanmity in the profession as to the use of digitalis in mitral disease. In the rapid, feeble, irregular action of disease of the mitral valve it is easily our chief remedy, and when aortic trouble is complicated with mitral regurgitation, digitalis may be given with much benefit.

Another remedy which is being used abroad more than in this country for certain secondary affections of the heart is the iodide of potassium. Where a condition of arterial cardiopathy exists and sclerosis invades the muscular tissue of the heart, a process that frequently advances in a very insidious manner, Huchard lays great stress upon the diastolic echo of the aorta. It is heard in the second and third intercostal spaces, and is similar to the stroke of a hammer, simply duplicated. It is here that the sphere of the Iodide may be found, where the muscular exhaustion of the heart is secondary to the impairment of the elasticity and calibre of the circulatory system.

In this country the Iodide has not been used so extensively as abroad, but See's eulogistic comments upon its utility in nervous or organic irregularity, in cardialgia, in fatty degeneration, weakened heart, and the arterial cardiopathy which we have mentioned above, certainly prompts us in directing renewed attention to the remedy.

He claimed it was in no sense a heart depressant, but, on the contrary, exercised a distinctly tonic effect: (1) by raising the energy of the heart and vascular pressure; (2) in dilating later on all the arteries, the circulation being thereby facilitated and the heart recovering its contractile power. Where the administration of the Iodide is indicated it is not necessary to administer it in large doses, ten drops, or even less, of a saturated solution being given in milk, three times a day. It is both surprising and gratifying to witness the excellent effect of this drug in the class of cases noted above, and particularly where debility is a marked symptom. It is the abuse and not the use of the Iodide of Potash that should be condemned.

Strophanthus is a remedy somewhat akin in its action to digitalis, but differs from it inasmuch as it does not increase arterial tension by vasor-motor constriction. Where digitalis does not agree with the stomach, strophanthus may be tried,

although in many cases it, too, will be found to disagree with the gastric functions. Weight for weight, strophanthus is a more powerful drug than digitalis. Five miniums of the strophanthus are often equivalent to double that quantity of digitalis. It may be used in the same class of cases.

Strychnine is another excellent heart tonic, particularly as to its effects upon the muscular tissue. This powerful alkaloid now extensively used, and with splendid results in a great variety of affections, is of singular utility in cardiac debility. It appears to be a direct stimulant to the cardiac plexus, as well as heightening arterial pressure by stimulating the vaso-motor centre. It is particularly useful where hypertrophy is passing into dilatation, when the muscular tissue begins to fail it stimulates and rouses the tissue that has not as yet pasesd into a condition of incipient degeneration. The alkaloid may also be advocated for those cases of supposed disease of the mitral orifice, where a murmur is found, not due to a true endocarditis, but simply to a relaxed condition of the valves in consequence of muscular debility. This is especially found in anaemic and chlorotic cases. Some authors claim that many of the so-called haemic murmurs referred to the area of the pulmonary valve are really mitral regurgitant in character. George Balfour accounts for the presence of such murmurs by asserting that the defective nutrition of the cardiac muscle, depending upon the depraved constitution of the blood, has resulted in relaxation of the muscular tissue and dilatation of the ventricular cavity, this producing imperfect closure of the mitral valve, and hence the murmur. Oftentimes, too, what appears to be a mitral murmur may, in fact, be produced by a lesion of the aortic orifice, for the murmur of the latter may be propagated to the apex, and if the leakage is free may give rise to the erroneous impression. But if it be borne in mind that mitral regurgitant murmurs are (1) heard loudest at the apex, (2) frequently heard as distinctly over the mitral valve, that is at the junction of the fourth rib and sternum (3) transmitted to the left, sometimes as far as the post axillary line (4) and again heard frequently beneath the scapula, the differential diagnosis will not be at all difficult.

Arsenic is another valuable remedy to be used with much benefit in beginning dilatation, and will be found especially useful in the more advanced forms prevailing in old people with feeble circulation and weakly-acting heart. It stimulates (1) the terminations of the pulmonary vagi (2) it increases assimilation (3) it appears to have almost a specific effect upon the emphysematous conditions which obtain in many elderly people, and by improving and equalizing the general blood pressure, diminishes the strain upon the dilated cavities of the heart. The oedema of the lower extremities often seen in young girls, and depending upon impoverished blood and weakened ventricular contraction will rapidly disappear after the administration of iron and arsenic. It frequently appears to act better in fatty degeneration than in actual dilatation, unless both conditions are synchronous, for in the former it seems to antagonize the degenerative changes from being hurried on beyond the reparative power of the constructive stage. In the irritable temperament often found where aortic regurgitation is present, arsenic will prove a valuable therapeutic measure when continued with opium. The cerebral symptoms in these cases are dependent upon the condition of anaemia present, and for its relief opium is par excellence, the drug to be used.

Caffein has been utilized of late years in various debilities of the heart and their consequences, but whether it is that its advocates have praised it too immeasurably, the fact remains that it will often be found disappointing. It is highly commended by Huchard in his clinics. He regards it as a true cardiac tonic and diuretic; while Semmola has found it to be of considerable utility in cardo-pathies of bulbar origin, and in cardiac arythmia, though in the latter form personal experience

Iodide of Potash has been found to be excellent.

These, then, are a few of the principal therapeutic measures which should be utilized in combating cardiac debility and its resulting failure. But it should not be forgotten that the action of these various tonics must be supplemented with other measures which have for their purpose the regulation of the various functions of the body. In the treatment of cardiac failure the state of the abdominal viscera with their many and interdependent relations, especially the functions of the kidneys, should be assidiously cultivated. The various cathartics and diurretics hold a high and justifiably esteemed place in the proper management of the consequences of impending heart failure, and it is in the suitable combination of cardiac tonics, and the use of those drugs which are particularly applicable to the management of the secretions and excretions, that the skillful physician can apply the highest principles of his art.

The contraction of the smaller arteries with increased arterial tension, a condition closely associated with cardiac failure and chronic degeneration and inflammation of the kidneys, so well described by Delafield, should always demand proper consideration. This process is frequently due to the presence of irritating material in the blood, producing pathological changes which react upon the whole circulatory system and cause renewed pressure to be brought upon the struggling heart.

General arterio-sclerosis and chronic kidney changes found in the decline of life are often associated with changes in the aortic region, which, owing to the lack of recuperative force are apt to be permanent in character.

Here it is that opium again is of peculiar efficacy in relieving spasmodic intermittent attacks of heart failure, as strongly advocated by Beaumetz. The principal indications then we have to contend with in dilatation are: (1) Impaired nutrition with excessive anaemia; (2) Degenerative changes in the heart muscle, produced either by changes in the cardiac muscle itself or from circulatory causes in the condition of the blood. (3) The prolonged and excessive use of the various cardiac poisons. Again we reiterate that it is not the presence of the murmur nor the change in the position of the heart which is of first importance, but the maintenance of the integrity of the heart muscle and the cardiac rhythm.

A CONTRIBUTION TO THE ACTION OF SALOPHEN.

BY DR. RICHARD BLOCH, DISTRICT PHYSICIAN, ZBOROVITZ.

However reliable may be the action of salicylic acid as an antirheumatic, the physician is frequently prevented from prescribing it in practice because it is not well tolerated by the patients, or its continued administration is attended with disagreeable after-effects, which necessitates its discontinuance. On the other hand, we possess a number of older efficient analgesics which, however, unfortunately quite often prove unsatisfactory. A valuable substitute for both these classes of drugs is salophen, whose therapeutic value has been sufficiently demonstrated by an extensive literature. Less is known, however, of the mode of action of salophen, and in the following I will therefore direct especial attention to this subject, on the basis of my own experience.

I will discuss the nature of the therapeutic action of salophen in chronic rheumatism, in chronic neuralgias of various kinds, and in pruritus cutaneus.

Cases I-IV—Typical forms of chronic rheumatism. Case 1, monarticular; Cases 2 and 3, polyartica-

lar; Case 4, Muscular. Although I have not entered into the details of the histories of these cases, I would remark in general that salophen produces as prompt subjective and objective improvement as is observed under the use of salicylate of sodium, and that it has the advantage over the latter of causing no concomitant effects of any kind and no digestive disturbances. Like salicylate of sodium, however, salophen is incapable of preventing the recurrences in chronic rheumatism which sometimes immediately ensue after discontinuing the remedy. In spite of this fact, however, salophen appears to be a very valuable addition to the list of remedies in chronic rheumatism, because, while fulfilling the therapeutic indications in the same degree as the salicylate, unlike the latter it can be administered in cases where the after effects of the salicylate, such as headache, tinnitus and digestive disturbances, require suspension of the remedy. I have repeatedly had an opportunity to observe that under the continued administration of salophen, in cases where the salicylate had to be discontinued, the tinnitus aurium disappeared as promptly as if the salicylic treatment had been completely given up, a fact which, in view of the obstinacy of chronic rheumatism and its great tendency to recurrences, is of no less advantage to the physician than the patient.

Aside from its anti-rheumatic effect which it shares with salicylate of sodium, its analgesic action, which has been praised by many authorities, seems to me to entitle this preparation to an important place in our materia medica, at the side of analgen, phenacetine, salipyrin, exalgin, etc. In this connection, sufficient attention has not been directed to the fact that when given in the customary doses for a long time, salophen produces no toxic effects of any kind. Instead of further general remarks conconcerning the indication of the remedy, its mode of administration and effect, I subjoin a few brief histories of cases which will serve to illustrate these points:

Case V.—Supra-orbital neuralgia; rapid cure under use of salophen. V. P., aged 31 years, had suffered since five years, during the autumn months, from more or less severe and prolonged pains in the right frontal region, and since about three months from intense pains in the right supra-orbital region, occurring suddenly and often lasting from six to seven hours. While in previous years the affection vanished in the course of three or four weeks under appropriate treatment, this time it had persisted for three months in spite of all treatment, and since two weeks had become so much worse that the patient was incapacitated from work. From the prescriptions shown me by the patient, I saw that all the customary remedies employed in these cases had been repeatedly prescribed and in fairly large doses; quinine, phenacetine, sodium salicylate and antipyrine had been used without any special success, while narcotics, such as morphine and chloral hydrate, had given only a palliative effect.

At the time of the patient's first visit, November 21, I found, aside from extreme sensitiveness to pressure in the region of the right supra-orbital foramen, nothing abnormal; the patient was of vigorous build, but much reduced in nutrition by the pains; the condition of the teeth, ears and nose was perfectly normal, so as to lead me to regard the neuralgia as of reflex origin.

I ordered twelve powders of 1.0 gm. each, of salophen; one powder to be taken four times daily. In case of the occurrence of an attack he was ordered six powders of antipyrin and codeine (antipyrine, 0.5; codeine hydrochlorate, 0.02), to be taken during the attack, at intervals of one-quarter to half an hour. I did not learn anything of the results of this medication until November 28, eight days later. The patient stated that November 21, in the afternoon, he had taken four of the salophen powders, had slept well, and had no attack on the following day, although he had been harassed for the previous six weeks by intense pains. Since then the attacks had not recurred, much to his own joy, and that of his family. He had taken the twelve powders, and aside from profuse perspi-

ration had experienced no after-effects of any kind. The other six powders had not been required. Examination of the right supra-orbital region, especially over the foramen, revealed an entire absence of sensitiveness to pressure, although I pressed more strongly than the day of my first examination, when even a light pressure evoked a violent characteristic attack.

Here we have an instance in which salophen acted promptly and admirably in a case of idiopathic neuralgia, which sometimes is extremely obstinate to all therapeutic measures.

For although the axiom laid down by Professor Benedikt in his lectures on neurology, "that the fact that an idiopathic neuralgia has become chronic denotes error in treatment in hospital practice and the better class of city practice," may be true in some respects, it certainly cannot be applied to the class of cases occurring in the country. Aside from the circumstance that the country practitioner is not provided with all the appliances for electrical treatment (a galvanic apparatus), he rarely sees cases in the recent stages, but usually after they have been subjected to inappropriate medication, at a time when the skin has been altered by irritating ointments, and the patients have been weakened by local abstraction of blood (by means of leeches or cupping). The use of the actual cautery so warmly recommended by Professor Benedikt as a radical curative measure, could not be suggested, much less attempted, even among the most intelligent of the clientele of the country practitioner, without subjecting him to ill-repute as being cruel and inconsiderate. As the physician is, therefore, dependent for the most part upon the use of drugs in the treatment of these diseases, it must be very desirable to him to have at his disposal a new remedy of so positive value.

Cases VI and VII.—In these two cases of sciatica, salophen in connection with the electrical treatment, gave better results than had been previously derived from the use of salicylate of sodium, quinine, antipyrine, phenacetine, etc.

Although salophen acted satisfactorily in both cases, I will communicate only one in detail, because it proves beyond the question of a doubt that the prompt improvement and the astonishingly rapid cure were attributable to the administration of this drug.

Z. T., thirty-six years old, maltster, had suffered for two weeks from pains in the right leg, which he designated as sciatica. He was fully justified in this diagnosis since he had previously had three attacks of sciatica in the right leg, which lasted for from eight to fourteen days, in spite of medical treatment. At his first visit, November 24, the patient limped in walking and supported himself upon a cane. The gluteal and femoral muscles appeared weaker on the right side than the left (this slight atrophic condition being attributed by him to a prolonged attack of sciatica three years before). The characteristic pressure points of sciatica were distinctly present. Salophen was ordered in 1.0 gm. doses, four times daily, and an indifferent liniment.

November 26, patient was already able to walk without a cane, with only a slight limp, and desired another supply of the salophen powders, which he said had acted more efficiently than any of the numerous drugs employed in his previous attacks. Under continued use of the drug, which had an admirable effect upon the pains and functional disability, the patient was completely cured and capable of work on December 4, although his attack at the beginning had threatened to be as severe as previous ones, which had resisted all kinds of treatment.

Case VIII.—Gonitis serosa, cured with salophen. D. P., aged 17 years, suffered from a marked swelling of the right knee joint, with intense pains for the past two days, these symptoms having developed after an attack of acute gastritis. An examination, December 8, showed that the right knee joint measured 3 cm. more than the left; palpation of the patella revealed great painfulness and sensitiveness to pressure in the re-

gion of the right knee joint. Applications of tincture of iodine were ordered twice daily, until the appearance of desquamation, together with moist poultices. Salophen, 12.0 gm., to be divided into twelve powders, one powder to be taken four times daily, was also prescribed. On my visit, December 10, I was astonished to find that the patient's condition was not at all improved, but that the subfebrile temperature had persisted; that the painfulness and tenderness had continued, and that the circumference of the right knee joint had increased by 2 cm. As the patient stated that he had not sweated after the medicine, I questioned him more closely, and found that he had taken only three of the powders, so that the failure of the medication had to be ascribed to a misunderstanding of the directions. After he had been again instructed and had taken eight of the powders, he was found to be much improved, with subsidence of all the symptoms and a diminution of the swelling, and after administration of eight more of the powders and discontinuance of the iodine applications, the swelling disappeared completely, and, December 14, he was discharged cured.

In the above-mentioned cases salophen manifested, besides its analgesic effect, also an anti-rheumatic action. Since there is reason to believe that in gonitis, as well as in sciatica and supra-orbital neuralgia, there is a rheumatic element. Aside from its valuable property of relieving pain, and especially of exerting an analgesic influence upon the peripheral cutaneous nerves, salophen is also an excellent remedy in many cutaneous affections attended with pruritus, as is shown by the following case of pruritus cutaneus.

Case IX.—Br. A., 30 years old, has been troubled since four weeks with extremely annoying itching of the skin, and owing to the constant scratching, the skin was covered with excoriations, pustules and papules. When examined, November 1, the eruption at first sight resembled scabies, but this affection was excluded on account of the absence of any of the characteristic signs. In spite of all kinds of remedies, no permanent benefit was obtained, although some had a transient good effect, especially the chloride of calcium and ointment of chloral hydrate with camphor. November 17, I discontinued all other medication and confined myself to the administration of salophen in 1.0 gm. doses, four times daily. The pruritus diminished after the first powder, and had completely disappeared after the administration of ten grammes.

The effect of salophen upon the peripheral endings of the cutaneous nerves was so manifest in this case that, on theoretical grounds, I thought it possible that the remedy might be useful in the pruritus connected with icterus, and this led me to employ it in the following case of marked pruritus attending chronic icterus.

Case X.—P. J., 47 years old, suffering with icterus, the third attack in three years. The first two attacks terminated in recovery after treatment for eight to ten weeks. The disease recurred in April, 1896, and, notwithstanding all sorts of remedies, had persisted since that time. The patient was troubled with intense itching, with formation of large furuncles and abscesses of the skin, in consequence of the scratching. November 21, I began the administration of salophen in 1.0 gm. doses, four times daily, but without any marked relief upon the itching. This case, however, afforded me an opportunity of observing the freedom of the drug from any disturbing effect upon the alimentary tract, since all the other remedies given had exerted an unfavorable influence upon the existing condition.

Although in this case of icteric pruritus cutaneus, salophen proved ineffective, owing to the extremely unfavorable conditions present, such as the long duration of the ailment and the suppurative processes in the subcutaneous tissues, this does not mean that the remedy would not be useful in less severe cases of catarrhal icterus attended with severe itching. At any rate, the disturbances of the digestive tract present in these cases would not be any contraindication to its employment.

Case XI.—Cephalalgia. D. K., 46

years old, was attacked with symptoms of acute gastric disorder and violent pains in the forehead, especially on the left side, and particularly intense over the parietal region. The symptoms present (complete loss of appetite, nausea, feeling of pressure over stomach, sleeplessness, etc.) pointed completely to acute gastritis, the cephalalgia being considered as a concomitant symptom. As the severe headache continued, in spite of the regulation of the digestive tract, the patient was first given a mixture of antipyrine and codeine, but as the pains became even more intense, I prescribed salophen, 6.0 gm., and codeine, 0.12 gm., to be divided into six doses, one powder every hour or two. In case the pains should not subside under this medicine, he was ordered besides a solution of morphine. On the following day the patient felt entirely relieved, and stated that he had not found it necessary to take the morphine prescription. He said that he began to sweat strongly after the second dose of salophen and experienced marked relief of the pains. Two hours after administration of the second powder he fell asleep, and had to be awakened to take the other two powders. The tenderness over the left side of his head had completely disappeared.

The history in this case of a severe cold, in connection with the fact that the patient was quite bald, led me to think that I had to deal here with the rheumatic affection of the scalp, due to exposure to cold, and that the prompt action of salophen was attributable to its anti-rheumatic properties.

Owing to our limited knowledge of the pathological processes designated as rheumatic, we are not warranted in regarding as of rheumatic origin every painful affection of the joints, muscles or nerves, resulting after exposure to cold, in which no special cause can be found for the existing pains, and this is proved by the partial or total inefficiency of specific rheumatic remedies, such as salicylate of sodium in many of these cases, as, for example, in idiopathic sciatica, intercostal neuralgia, and in the case under consideration; on the other hand, there can be no doubt that salophen exerted a far more pronounced analgesic effect than antipyrine upon the cephalalgia. That this analgesic effect is manifested in a high degree by salophen is demonstrated by the following case:

Case XII. Trigeminal neuralgia following periostitis. Fr. A., 37 years old, had suffered since two weeks from violent pains over the right side of the face and head, especially in the parietal region. The affections began with pains in the teeth of the lower jaw, which, after lasting for two days, were followed by a swelling over the inferior maxilla, from which the intense throbbing pains appeared to radiate. The swelling, which was only slightly sensitive to pressure, had given rise to some impediments in the movements of the jaw. On examination, December 1, I found a hard periosteal tumor, of the size of a pigeon's egg, over the right lower jaw, sensitive to pressure, immovable and adherent to the bone; the skin covering it was unchanged, and the swelling seemed to be distinctly connected with two markedly carious roots of the lower molars, which were extremely painful upon touch. December 1, after extraction of both the roots, the pains persisted, especially in the head and face, which pointed to the presence of deep suppuration, although examination with a probe gave completely negative results. For this reason, incision did not appear indicated, and appropriate measures were taken to prevent the formation of an external dental fistula by application of tincture of iodine to the outside of the tumor, followed by compresses moistened with Burrow's solution. December 2, the patient still experienced intense pain, which had prevented him from sleeping. In view of the absence of fluctuation, there seemed to be no indication for incision of the swelling, and I, therefore, made a trial of salophen in 1.0 gm. doses, three of the powders being given in the course of the afternoon. Even after the second powder the patient experienced considerable relief, and after the third powder, broke out into a strong sweat and fell asleep. Although pains still appeared occa-

sionally in the periosteal tumor, the radiating pains on the left side of the head and face had disappeared, and the patient's condition had become much improved.

This analgesic effect, which was undoubtedly attributable to the use of salophen, appears to me the more remarkable, since, in view of the marked sensitiveness to pressure and enlargement of the periosteal tumor, as well as the throbbing pains occasionally appearing in it, I was inclined to believe that the progressive suppuration and the external eruption of the abscess could no longer be prevented. As a matter of fact, on December 11, when fluctuation had become distinctly manifest, I made an incision and evacuated the pus.

While I would not over-estimate the significance of a few cases successfully treated with any remedy, I am led, on the ground of my observations, to present the same conclusions which have been recently formulated by Dr. Baque in an article based upon fifty cases subjected to careful clinical investigation. While it has not been my intention to offer confirmatory testimony as to the action of salophen, since this has already been demonstrated sufficiently by other observers, I have presented my cases simply with the view of pointing out the many-sided and serviceable properties of salophen, in order to induce the physician to give it a trial in his practice.

—Die Heilkunde.

Editorial

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MEDICAL SOCIETIES AND THE LAY PRESS.

Recently, at the New York Academy of Medicine, the question was raised as to whether the public press should be notified of its general meetings, or its representatives be permitted to attend. A motion was made that they be excluded. This was lost. This action opened the discussions of the academy to representatives of the press, and raises the question, whether it may not be well that the same privilege be extended by all our other medical societies in this country.

At first glance it would strike one as highly improper to admit laymen to those societies which consider chiefly scientific questions, or medical conventions of any description. Their presence might seem in contravention with prevailing custom, and little less than an impertinent intrusion, which should be discouraged or suppressed.

Except, indeed, on those rare occasions, when such subjects are being considered, as are of public concern, it would seem that a medical meeting was no place for the ubiquitous reporter. While physicians are strictly prohibited from advertising in the lay press, with what consistency can they appear in its columns, with impunity, when it is done through the medium of society discussions? It would seem to be clearly a violation of the code, but the code is long since a dead letter, and practically exists to-day only in memorium, for it permits anything and everything.

Every year we have in this country an annual convention of the American Medical Association. This is a delegated body, composed, presumably, of straight-laced code men; but where, one might inquire, is there a meeting more widely advertised or more fully reported in all its details by the lay press? All its general and secret sessions are thrown widely open to the public press, and in no better manner can one gather a notion of the extent and character of the work done than through the leading "dailies."

And this is as it should be, as in

this progressive, enlightened age there is no reason why practitioners should wish to conduct their deliberations in secret, and, moreover, those members of the craft who go to the expense and undertake the labor of providing substantial contributions to our general knowledge are entitled to all the benefit our medical and lay press can give them. But it may be alleged that this is advertising, which it certainly is.

It should be remembered, however, that the midnight oil, weeks and months of laborious toil and effort are not consumed for one's health, and compensation must come through some source, and advertising through this means is the only one permitted.

The day of the harping, carping dog-in-the-manger is past; the road is wide, and the way open to all.

None are so obtuse as to disregard the omnipotence of the press or the obvious aid of it as an advertising medium.

In the New York Academy it is fair to assume that those members not engaged in special work or not teaching staffs, would like to see the reporters driven out, while those whose labors provide the pabulum for its scientific maintenance are desirous of all the currency he may be able to give them.

BENSOLYPTUS — ALKALINE, ANTISEPTIC AND PROPHYLACTIC.

In the treatment of catarrhal affections of the mucous membranes the value of alkaline antiseptic fluids, both as a means of obtaining cleanliness and promoting a return to a healthy state, is well recognized by all authorities. What has been termed the toilet of the nose and throat is best secured by the employment of an alkaline fluid which will dissolve and wash away decomposed and irritating mucus, destroy the microbes of disease, and check any existing inflammatory condition. Such a fluid must also be perfectly harmless and non-irritating, even when applied to inflamed surfaces.

It is believed that all the requirements demanded of a cleansing and healing fluid are best realized in Bensolyptus. This preparation is an agreeable alkaline solution of various highly approved antiseptic medicaments, so combined that one supplements the action of the other. Its ingredients are all of recognized value in the treatment of catarrhal troubles, exerting a cleansing, soothing and healing effect. While strongly antiseptic, Bensolyptus will not injure or irritate the most delicate and sensitive mucous surface, and its pleasant taste and odor commend it even to fastidious persons.

In the treatment of cases of nasal catarrh, whether of acute or chronic character, it is of great importance to dissolve and remove the thick and tenacious mucus and crusts, the presence of which not only adds to the existing irritation, but provides a fertile soil for the growth of injurious microbes. For this purpose Bensolyptus is particularly adapted by reason of its alkaline and antiseptic properties. Employed as a spray, injection, or douche in acute or chronic catarrhs of the nose, it diminishes or arrests the discharge, subdues the inflammation, and relieves the pains and swelling in the nose, and the feeling of dryness present in some cases. Bensolyptus may be diluted with from four to eight parts of water, the stronger solutions being used in the more chronic troubles.

Affections of the mucous membrane of the throat, as pharyngeal catarrh or tonsillitis, are also greatly benefited by the use of Bensolyptus employed as a spray or gargle, dilut-

ed with three or four parts of water. In these conditions it cleanses the throat of disagreeable secretions, reduces the inflammation, and has a soothing and healing influence. It will be found very beneficial in diphtheria and the sore throat of scarlet fever.

As a mouth-wash and dentifrice, Bensolyptus possesses exceptional advantages. Its alkaline constituents neutralize the acidity so often present in the mouth and so prejudicial to the health of the teeth and gums, while by reason of its antiseptic properties, it prevents microbial development, with consequent dental decay. The fragrant odor and pleasant taste of Bensolyptus render it a most delightful addition to the toilet of the mouth, as a deodorant, imparting an agreeable odor to the breath. As a mouth-wash it may be diluted with from two to four parts of water.

Aside from its use in the above conditions Bensolyptus will prove of value in catarrhal troubles of other mucous membranes. It is also of great service as a cleansing lotion in the treatment of wounds, ulcers and some unhealthy states of the skin.

For internal use Bensolyptus is indicated in all conditions where an agreeable and efficient antiseptic is required, as in affections of the stomach and intestinal canal attended with fermentation of food, eructations, heartburn and in typhoid fever. The average dose here is one teaspoonful in a wineglassful of water.

A NEW METHOD OF LOCAL ANESTHESIA.

Since the discovery of the anesthetic properties of cocaine, its sphere of usefulness has constantly broadened, and it has become one of the most serviceable drugs in the every-day practice of the physician. Recently, attention has been directed to a new method of employing cocaine, the aim of which is to facilitate its use and render it more safe and efficient. In devising this method, three objects have been kept in view: 1. To secure an absolutely pure grade of cocaine, free from all by-products. 2. To do away with ready-made solutions, which are liable to decomposition, and then lose their potency and become irritating. 3. To dispense the cocaine in such form that fresh solutions of any desired strength can be prepared at a moment's notice. To accomplish these objects, it has been found advantageous to employ the cocaine in the form of discoids, each of which contains a definite quantity of the drug, without any excipient whatever. The amount of cocaine hydrochlorate in each discoid is accurately determined by weight, and in consequence of their ready solubility the discoids dissolve in a few drops of water. The physician, therefore, always has at hand the material for preparing fresh cocaine solutions, of any percentage strength desired. Thus, for instance, if he wishes to make use of a few drops of a 4 per cent. solution, all that is required is to dissolve a one-fifth grain discoid in five minims of water, while larger quantities can be prepared in the same way. By proceeding in this manner, the physician is always informed as to the amount of the drug he is using in any given case, and unpleasant or serious effects are thus reduced to a minimum. For the induction of local anesthesia in minor surgery, dentistry, diseases of the eye, ear, nose and throat—in short, wherever there is any indication for the use of cocaine—the cocaine discoids will be found the most eligible method of securing the beneficial effects of this remedy.

These discoids are prepared by Schieffelin & Co., who were the first to make cocaine in this country, and as is well known, their name has long been identified with the manufacture of high-class pharmaceutical products. Every means is taken by them to produce absolutely pure cocaine, and to secure uniformity and accuracy of weight in the preparation of discoids.

Clinical Medicine.

In charge of Dr. J. J. Morrissey.

THE PHYSICIAN AND PREVENTIVE MEDICINE.

The deep interest that is felt in all questions pertaining to health and its preservation is somewhat of a guarantee that the future of the human race will be maintained at a higher standard of physiological security than that which it now occupies.

Science has advanced with rapid strides in the past decade of years, and the accumulation of scientific data upon which to base future calculations is a powerful indication of the modern tread of scientific investigation. Education, too, both as to the schools and the public press, has awakened a deeper realization of the vast responsibilities thrust upon parents in conserving the health and physical welfare of their children and surrounding them with every hygienic comfort whose aim is their better development.

The aim of government in an enlightened community should be the happiness of the people, and as health is one of the greatest natural blessings which man possesses its preservation should be safeguarded as far as possible by municipal ordinances.

We are apt to judge the refinement and civilization of a country by the cleanliness of its citizens, for where there is filth there is disease, and where the latter obtains there is discontent. The making of a people healthy, therefore, should be, and is, the criterion of a good government.

The day has long since passed when filth and uncleanly degradation were considered absolutely necessary as sources of mental contentment. The enlightened philosophy of the nineteenth century deals with these questions from a broder standpoint, and it is to the great credit of the physician that the agitation of all questions pertaining to the preservation of health and the prevention of disease has mainly sprung from his teachings.

It is in just this sphere of preventive medicine that the future physician will find his noblest occupation, and as oftentimes disease is the inevitable product of ignorance we fulfill the highest functions of our profession in teaching how best to maintain bodily well-being and perfection. Herein lies one of the greatest attractions of the true physician's vocation, for it places him on a God-like eminence, far removed from the mere commerce of business life; and for its accomplishment no talents are too great, no effort too strenuous, no sacrifice too enduring. It is this high standard of excellence for which the true physician is ever working, and while other professions are constantly striving to aggrandize their interests, to the lasting credit of the medical profession be it said, its members are continually seeking to make their profession unnecessary.

The rewards of medicine are not therefore to be gauged by any strict money basis, and to the young man who imagines that in its pursuit he will quickly gain wealth and still retain honor there will be nothing but disappointment. Competence and comfort may come, but only in the accomplishment and fruition of the higher purposes of our calling.

J. J. MORRISSEY, A. M. M. D.

DEXTROCARDIA WITHOUT GENERAL INVERSION OF THE VISCERA.

Auche and Bouyer have met with a case of dextrocardia apparently congenital, without coexisting inver-

sion of the other organs. The patient was a man, 42 years of age, with a good family history, who had served his time in the army. His only trouble was a long-continued series of dyspeptic attacks and stenosis of the lower end of the esophagus. At the time when he was seen by Auche and Bouyer, however, he had developed pulmonary tuberculosis, and it was during the examination of the chest that the presence of the heart on the right side was noticed. The cardiac inversion was complete; it was not simply a case in which the organ was pushed or pulled to the right, but the apex beat was in the fourth intercostal space outside the mamillary line, a position which it does not occupy in acquired displacements. Further, there was no evidence of pleurisy, old or recent, on the left side, while on the right there was no thoracic retraction. It was apparently, then, an instance of that rare anomaly, dextrocardia without inversion of the other organs, unconfirmed so far by a necropsy.

—Jour. de Med. de Bordeaux, August 22, 1897.

HEREDITARY LOCOMOTOR ATAXY.

Kalischer, at the Berliner Gesellschat fur Psychiatrie, showed a mother and son, aged 51 and 27 years respectively, both suffering from typical locomotor ataxy. There was nothing whatever to suggest syphilis either in the history or in the patients. In the mother the disease began at 31 years; in the son at 26 years of age. Other cases have been recorded in which the children of parents who had locomotor ataxy showed symptoms of the disease much earlier than in Kalischer's case, but it is pointed out that in children the diagnosis must be made with caution, as Friedrich's disease is easily mistaken for locomotor ataxy. The writer has been able to find two such cases where the diagnosis and hereditary locomotor ataxy in children seemed certain, and other doubtful cases are mentioned.

—Neurol. Centralblatt., December, 1897.

APPENDICITIS DURING AND AFTER PREGNANCY.

Vinay records four cases, and in all refers to 32 cases. The small number tends to show that pregnancy does not set up torsion of the appendix or colitis, conditions which would increase the virulence of the colon bacillus, and so induce appendicitis. In the 32 cases there were ten deaths, a percentage of 31 per cent., which is much higher than that of Armstrong in his series of 517 cases, with a mortality of 12.8 per cent. The only complication of importance in appendicitis occurring during pregnancy is abortion, which was noted in 40 per cent.; this accounts for the fact that in half the 32 cases the children died. This frequency of abortion is much above that seen in other infectious diseases, and is referred to the intimate vascular and lymphatic connections existing between the appendix and the uterine annexa. Clado described an appendicular ovarian peritoneal fold as being constantly present, and considers that this carries the lymphatics from one to the other. Lafforgue, however, only finds it in 20 per cent. of bodies examined. In two of Vinay's four cases the appendicitis was primary, but in the other two the appendicitis was due to the spread of infection from the uterus. In the first there was post-puerperal infection, which lighted up old appendicular mischief. The appendix was resected, and the right tube and ovary appeared healthy. In the other case, a primipara with a history of membranous colitis, there was hemorrhagic metritis due to retention of placental tissue, with subsequent appendicitis. The differential diagnosis of appendicitis during pregnancy from tubal gestation on the right side is not difficult, but it is less easy to distinguish it from right salpingitis complicating pregnancy. Appendicitis during pregnancy should be treated like ordinary appendicitis.

—Lyon Med., January 2.

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CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

ON THE PATHOLOGIC ANATOMY OF TRAUMATIC HERNIA.

Mr. Bland Sutton has called attention to a lamentable state of the abdominal walls which may succeed laparatomies, and alleges that sometimes the hernial prolapsus following may occasion the afflicted much more distress than the state for which the original operation was performed. And recently (London Lancet, November 27, 1897), Mr. Alban Doran contributes a valuable report on the same topic.

It is, therefore, evident that whenever we proceed to open widely the cavity of the peritoneum, we should not overlook the possibility of ventral extrusion at any time, recent or remote, after recovery.

But why should this troublesome sequelae follow at all, if proper provisions are observed to prevent it? In order to answer this, we must briefly review the anatomy of the parts involved, and the pathologic processes which come into play.

First, it should be remembered that the fixed and floating viscera of the abdomen are held in position by contractile tissues; secondly, that they are largely supported in position by the abdominal walls, which laterally and anteriorly are so clothed by a muscular investment as to preserve a firm uniform support; third, both of these supports are powerfully influenced by incessantly intermittent pneumatic pressure from above, and a varying pressure through gaseous distension of the intestine.

An incision or laceration through any area of the muscular walls of the abdomen leaves a dead line, a defective gap. Muscular tissue once destroyed is never reproduced, the hiatus being filled by connective tissue. Experience has proven that the less there is of this tissue the more certain and secure is the band of union; and hence, we have come to discard drainage in all non-suppurative states, and endeavor in all cases to secure primary union.

In the young vigorous male adult, of firm muscular fibre, the contractile properties of the mesentery are quite ample to hold the intestine up without the auxiliary muscular support of the abdominal walls. But in the child-bearing female, in whom intra-abdominal pressure is augmented both by the gravid uterus and its contractions in labor, the entire ventral areas are put on a severe strain with a yielding in defective situations.

The tendency to post-coelic incisions is greatly increased after middle life, when degenerative changes have begun, and when hernia of every description are most numerous.

In those "pot-bellied" females, whom we sometimes see after confinements, if they have suffered a laparotomy early in life, hernial protrusion is almost certain to follow. Doran denies that the manner of closing the incision has anything to do with the ultimate tendency to a giving way of the scar, and in this he is no doubt correct; nor have we any evidence that a forcible separation of the muscle fibres in the long axis gives us any guarantee against prolapse not provided by proper approximation. It has been sought to obviate the tendency to these ventrations by the small incision; but we are not certain of this, and, moreover, as our results after intra-abdominal operations depend on precision and exactness of detail in technique, with celerity of action, we must not be chary about making an opening which will permit unhampered manipulation.

In our next contribution certain aspects of the morbid anatomy and pathologic changes of certain complicated types of post-operative eventuations will be considered.

T. H. M.

SOME MODERN METHODS OF TREATING FRACTURES.

Buscarlet insists on the fact that the best method of treating fractures is a combination of the old method of complete immobilisation of the parts with massage and passive movements. Those who follow the classical method exclusively get straight limbs at the expense of free movement, while those who follow Lucas-Championniere's advice without understanding it, and use massage alone, produce lifelong deformities. The author's method is to apply light, easily removable plaster splints, and to seize the first opportunity, when there is a certain amount of union, to begin passive movements. This varies for each fracture, the time to begin being earlier for fractures at the wrist and shoulder, for instance, than for those at the elbow, knee and ankle, while it is latest for the humerus and ankle when there has been much displacement. He gives fourteen cases of fracture in various parts thus treated where the cure was very rapid and satisfactory. Labbee (Sem. Med., December 29), believes that the treatment by passive movements and massages is excellent for some fractures, such as articular and periarticular, but that immobilisation is necessary for others, such as all fractures about the middle of long bones, and especially those at the lower third of the leg. To treat these by massage is to court the formation of false joints. Lucas-Championniere (ibid.) agreed with Labbe that a few fractures, such as those of the lower third of the leg, required splints; otherwise all should be treated by massage and movements, since immobilisation was an unfavorable condition for repair. He did not believe in the danger of false joints. J. B. Roberts (Annals of Surgery, January, 1898) relates the case of a man with fracture of both legs of five months' duration where deformity and over-lapping with greatly delayed union occurred. He cut down and wired the worst one; some suppuration, but no union followed. He then applied a rubber bandage round the lower part of the thigh so tightly as to keep the leg blue and swollen, with the idea of increasing the formation of callus by the circulatory changes. The patient wore this bandage and a light plaster splint day and night for three and a half months, and was encouraged to walk with a stick. At the end of the time a considerable amount of union had taken place. Consolidation had taken place also in the other leg, which, however, had never been so bad, so it is difficult to tell exactly the part played by the congestion method, though it seemed to do good.

—Rev. Med. de la Suisse Rom., December 20, 1897.

NEURECTOMY FOR TIC-DOULOUREUX.

Bernays' "Report of a Surgical Clinic," complimentary to the members of the Mississippi Valley Medical Association contains the following, in reference to his patient's condition and treatment before neurectomy for tic-douloureux was decided upon:

"Case V.—The patient, aet. 50, white, female. Family history: Has one sister who suffered from emotional insanity, otherwise the family history is good. Previous health excellent. The present trouble began with a severe neuralgic toothache, localized in the right lower molars. Paroxysms of pain were of daily occurrence, and most severe in the mornings about breakfast time. The pain subsided temporarily whenever the teeth were pressed firmly together, or upon any substance held between them; but only to return when the pressure was withdrawn. The presence of anything cold in the mouth immediately produced the most exquisite pain; moderate heat produced a soothing effect. After two months the pain became continuous, and four molars were extracted without in any way relieving it. On the contrary, the pain increased in severity until October, when it ceased entirely for a period of two weeks, and then returned as severely as before. Another tooth was sacrificed, but without relief; the pain became continu-

ous until last June, when it again subsided for a period of six weeks. A recurrence then took place, together with an involvement of the parts supplied by the second branch of the fifth nerve. Pain has been constant until the operation. She had strenuously avoided the use of narcotics, but during the more active periods of pain antikamnia in ten-grain doses was found to be an efficacious obtunder." After describing the neurectomy, Professor Bernays says: "Eight weeks have now elapsed since the operation, and no recurrence of the trouble has taken place."

CHRONIC GONORRHEA; ITS SCIENTIFIC TREATMENT.

BY FRED C. VALENTINE, M. D.,

SUMMARY.

1. There are no incurable cases of chronic urethritis.

2. All drugs suggested for the treatment of chronic gonorrhea soon are relegated to merited oblivion.

3. The only efficacious method of treating chronic gonorrhea is by dilatations, as proposed by Oberlaender, followed by irrigations, without a catheter, of the urethra or bladder, or both.

4. Urethral fever or other disturbance does not supervene after urethral instrumentation followed by irrigation.

5. Carefully conducted dilatations and irrigations are not painful.

6. Gradual, careful pressure by dilators is preferable to the use of sounds in the majority of cases.

7. The effect of dilatations is to stimulate absorption of the infiltrations.

8. Functional disturbance and nervous symptoms are improved very early in the treament.

9. Chronic urethritis can be exceptionally diagnosed, successfully treated, but never pronounced cured without the aid of the urethroscope.

—The Clinical Recorder, Jan., '98.

CYSTIC TUMOR OF THE ROUND LIGAMENT.

Ulesko-Stroganowa describes a case of this kind of tumor which was not a peritoneal cyst, in the inguinal canal. The patient was 53. During an operation for the removal of an ovarian cyst and myoma of the uterus this tumor was discovered. It was as big as a fist, unilocular, and contained a limpid fluid as seen in a parovarian cyst. The cyst wall contained muscular fibres, and was lined internally with ciliated columnar epithelium. No epithelial structure normally exists in the round ligament, hence this tumor must have been developed from a stray Wolffian tube.

—Vratch, 1897, p 1162.

HERNIA OF THE ABDOMINAL CICATRIX AND OPERATIONS FOR ITS CURE.

BY ALBAN DORAN, F. R. C. S. Eng.

The Lancet (Nov. 27, 1897).

The author regards hernia of a cicatrix after abdominal section an accident of no great rarity. Small ones, he says, may be readily pressed back, but when they attain considerable volume, they may become a greater trouble than the disease for which the operation was done.

The author disagreed with the description of the morbid anatomy of these lesions as defined by the late Grieg Smith, and was wont to believe that in operations for their relief the peritoneal cavity must be opened, in order that all constricting loops and adhesions be liberated. Smith had found no narrow constricting neck of the sac, nor did he believe they existed; but Mr. Doran proves by cases cited in his own practice that they are by no means uncommon and constitute one of the great dangers. There is something more than a mere stretching of the peritoneum, for frequently we find everything bound up, in one mass, adherent to everything. Mr. Doran here gives notes on severe cases, all of which were relieved by operation; but he adds: "I am not so sanguine about ultimate results, so far as immunity against recurrence is concerned."

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

Current Medical Literature.

TRAUMATIC PULMONARY TUBERCULOSIS.

Schrader says that trauma has long been recognized as a possible cause of acute pneumonia, but that the connection between injury and chronic disease of the lung is less easily established. He relates the following case: A man, aged 29, previously healthy, and with no family history of phthisis, had a severe fall on the right side of the back, and was unconscious for fifteen minutes. On the same evening he felt ill, and was admitted into hospital two days after the accident. There was then considerable grazing over the right scapula, and pain was complained of in the chest corresponding to the injured part. The breathing was difficult, and the temperature 38.8 degrees C. The breath sounds were absent, vocal vibration increased, and the percussion note impaired in the region underlying the injury. The diagnosis of pneumonia of the right middle and lower lobes was eventually made. About thirteen days after the accident tubercle bacilli were found in the sputum. The patient's condition remained much the same for some days. There was loss of weight. Eventually improvement took place, so that four months after the accident there were no abnormal physical signs beyond a slightly impaired note over the lower part of the right lung. The author refers to some recorded cases of supposed phthisis following injury. He draws attention to the fact that before the traumatism the patient was absolutely well. Whether the pneumonia following upon the injury is to be looked upon as a contusion pneumonia which favored the invasion of the tubercle bacillus, or whether it was a tuberculous broncho-pneumonia from the beginning, is difficult to decide. The author is inclined to accept the latter interpretation. The temperature chart was characteristic of tuberculosis. Finally, the author summarises the evidence in favor of this view: (1) The development and course of the tuberculous lesion were carefully observed after the accident; (2) the disease corresponded to the site of the injury; (3) there was no clinical evidence of tuberculous disease in the lung immediately after the injury, and no history of previous illness; and (4) certain proof of tuberculosis was forthcoming some little time after the accident, the development of which was quite in keeping with that of the ordinary disease.

—Berl. Klin. Woch., November 15, 1897.

THE SERUM DIAGNOSIS OF ENTERIC FEVER.

Levy and Gissler describe their method of carrying out Widal's test. The typhoid bouillon culture should not be older than ten to twelve hours; otherwise there is danger of a pseudo-agglutination. The authors maintain that fluid serum should be used in preference to dry blood. An observation period of two hours is sufficient. In a typhoid epidemic the serum reaction gave a positive result in 105 out of 115 cases. The authors investigated these cases in such a way that one of them made the bacteriological examination and the other the clinical, and then they compared notes. All the 105 cases showed the clinical characteristics of enteric fever, whereas the remaining ten did not. When it is considered how difficult it is to exclude errors of diagnosis in an epidemic, the value of the test becomes obvious. Two cases were particularly instructive. The diagnosis lay between enteric and puerperal fevers. In the one case the patient was admitted after fourteen days' illness, and Widal's test was positive. Besides a puer-

peral endometritis, the characteristic lesions of enteric fever were found after death. In the other case the patient was sent in with the diagnosis of enteric fever, but the reaction was negative. At the necropsy a puerperal endometritis was found, but no lesions of enteric fever. A table is appended showing the details of the various cases. In none of the genuine cases did the reaction fail. The serum reaction enabled them to distinguish between diseases with symptoms resembling enteric fever and the abortive forms of the disease itself. In ten of the eighteen cases it made the diagnosis possible in the first week; of the remaining eight, five were not enteric fever and three gave the reaction later. Of 26 examined in the second week of the illness, the reaction was positive in 22, and the remaining four proved not to be typhoid. Of 26 in the third week, 24 were positive and the remaining two turned out not to be typhoid fever; 16 examined in the fourth week, 13 in the fifth, seven in the sixth, ten in the seventh, and five in the eighth, all gave positive results, and the disease presented the characteristics of enteric fever.

—Munch. Med. Woch., December 14, 1897.

THE TOXIC AND ANTITOXIC PROPERTIES OF EEL'S AND VIPER'S BLOOD AND BILE.

Wehrmann has worked at this subject in Calmette's laboratory, and publishes an exhaustive memoir, in which the following are the principal conclusions arrived at. (a) Eel serum; 1 c.mm. injected into the peritoneal cavity kills a guinea-pig of medium size, and the same dose kills a rabbit weighing four pounds by intravenous injection. When heated to 58 degrees C. for 15 minutes, it loses the greater part of its toxicity, and acts just as if simply diluted with water. When injected it usually causes somnolence, and perhaps fall of temperature, but the animal is as a rule all right within two to three hours, by which, time, however, it has acquired some degree of active immunity to unwarmed serum, lasting as long as three days. This warmed eel serum is also preventive against viperserum, but only for twenty to twenty-four hours. It has no neutralizing or curative action in respect of these poisons, and is hence not antitoxic. Eel serum precipitated by alcohol and redissolved in water has no curative properties. Eels are no more resistant to serpent venom than are guinea-pigs. The toxicity of ells' blood is, however, greatly reduced by the injection of antivenomous serum twenty-four hours before bleeding. Antivenomous serum is preventive in respect of, and in stronger doses neutralizes in vitro, and cures the effects of eel serum. Antidiphtheria serum prevents and neutralizes, but is not curative. Antitetanic serum, normal horse and rabbit serum, and beef bouillon are inactive as regards eel serum. The serum of a rabbit immunized against eel serum is preventive and curative as regards serpent venom and eel and viper serum. (b) Viper serum; this is about one-third as toxic as that of the eel. It can be used as a preventive inoculation against snake venom, but not against eel serum; anti-venomous serum is preventive and curative in respect of it. Viper serum precipitated by alcohol and redissolved in water gave in one out of two experiments a curative effect as regards snake venom. (c) Action of bile from the ox, eel and viper upon toxic serums and upon venom. Ox bile destroys in vitro the toxicity of eel serum and of venom, but has no preventive or curative action. Eel bile neutralizes in vitro venom and eel serum, but has no preventive and neutralizing action in respect of venom, and eel and viper serum. These varieties of bile hence act mainly by admixture, as if they possessed digestive properties. The author's studies are of great importance, as illustrating how the serums of animals immunized against one poison are frequently curative in respect of others.

—Ann. de l'Institut Pasteur, November, 1897.

MERALGIA PARESTHETICA.

Sabrazes and Cabannes give an account of the literature of this affection, and report a case. It occurs more frequently in men than women. The cause of the disease is not always apparent. The chief symptom is an abnormal sensation on the antero-external aspect of the thigh in the distribution of the femoro-cutaneous nerve, felt during rest as well as on standing or walking. This sensation may be converted into one of more or less severe pain under certain circumstances. Most often the sensation consists of numbness, accompanied or not by formication. Slow, rapid, or prolonged walking or standing may bring on the attack. Usually it is arrested by sitting down for some minutes. The left side has been more frequently involved than the right; occasionally it has been bilateral even from the commencement. The paresthetic zone extends from the anterior superior spine to the external condyle. Sometimes it occupies patches only. Sensation is variously affected. The hypesthesia and hypalgesia is often partial. This objective disturbance of sensation is a prominent symptom in the case. This meralgia is usually a disease by itself, but tabes and diabetes have been noted as causes. The affection may undergo spontaneous cure. Treatment gives variable results. Massage and electricity have been found useful; rest is essential. Resection of the nerve might be advisable in inveterate cases. The femoro-cutaneous nerve is usually derived from the second lumbar. The diagnosis is generally easy; it must be distinguished among other affections from hysteria. Bernhardt would look upon the disease as a neuritis of the femoro-cutaneous nerve associated with an infective illness (enteric fever), with an intoxication, or with tabes, or due to the action of cold. The femoro-cutaneous nerve is superficially placed, and hence is, according to some authorities, exposed to traumatism. The authors themselves regard the disease as a more or less profound neuritis of the femoro-cutaneous nerve which may be caused by direct traumatism. The position of the nerve exposes it not only to direct injury, but also to stretching and to congestive accidents. This change in the nerve may also be associated with an infection, intoxication, or a disease of the central nervous system.

—Rev. de Med., November, 1897.

NEUROTIC PEMPHIGUS FOLLOWED BY KELOID.

Kaposi, at the Gesellschaft der Aerzte of Vienna, showed a case of neurotic pemphigus in a young man. A few weeks after a burn of the dorsum of the right hand blebs appeared, and spread up the arm from the seat of injury. The left side of the body subsequently became affected, and keloid growth appeared where the blebs had been. The pemphigus and its results are to be explained by an irritation of the nerves, which starts at the seat of injury and spreads up to the vasomotor centres in the spinal cord. Keloid thus produced, whether by zoster gangrenosus hystericus or by pemphigus neuroticus, has a more favorable prognosis than idiopathic keloid. The former variety of keloid usually subsides after months or years.

—Neurol. Centralblatt, November, '97.

DIAPHRAGMATIC HERNIA.

Dolinsky states that a healthy woman gave birth to a female child which was very livid. The heart could be felt beating on the right side. All the usual methods to promote respiration proved useless, and the infant speedily died. A necropsy was performed, and the left half of the diaphragm was found wanting. The abdominal viscera had entered the thoracic cavity, pushed the heart to the right, and pressed the left lung, which formed a very small solid mass.

—Vratch, 1897, p. 1343.

MALIGNANT UTERINE DISEASE AFTER PREGNANCY.

Lonnberg and Mannheimer discuss two instructive cases, both operated upon by Netzel. One occurred some time ago, before the discovery of deciduoma malignum, and was published as a peculiar case of cancer. The patient died six months after delivery from cachexia and hemorrhage, treatment proving ineffectual. There were metastases in several of the internal organs. It was noted at the time that the cells in the tumor substance resembled decidual cells. The second patient was 42. She was delivered of a large hydatid mole; flooding ensued, and a month after delivery the uterus, much enlarged, was removed. Twelve days later some metastatic deposit was removed from the vagina. A year later the patient was still in good health. The growth sprang from the posterior wall of the uterus, and the microscopic appearances indicated carcinoma syncytiale uteri. The authors have collected all reliable cases of sarcoma deciduo-cellulare, syncytial carcinoma, serotinal tumor and sarcoma of the chorion; that is to say, all instances of malignant disease apparently associated with the histological products of gestation, and collectively termed deciduoma malignum. Out of 53, 29 were associated with normal and 24 with vesicular ciolar pregnancy.

—Monats. f. Geburtsh. u. Gynak., Jan., '98.

METRITIS DISSECANS IN CHILDBED.

Beckmann reports two cases. A primipara, aged 23, became infected during delivery and died on the sixth day. There was purulent peritonitis; typical endometritis dissecans was also detected, with a sphacelated area as wide as a crownpiece, which became detached during examination, displaying a perforation. The second patient was also a primipara, aged 29. Basiotripsy had to be performed, and the patient was infected during labor. On the twenty-sixth day the uterus expelled a piece of its mucosa five inches long, triangular, and three and one-half inches wide at its base; next day another piece one and one-half inches long came away. The temperature, which had been high, fell, and the patient made a rapid recovery.

—Vratch, 1897, p. 1342.

VICARIOUS MENSTRUATION AFTER HYSTERECTOMY.

Marsi states that the total hysterectomy was performed on a young woman in August, 1896. Ever since she observes that the urine becomes bloody at intervals precisely corresponding to former monthly periods. Between the times of appearance of blood the urine is absolutely normal, and at no time is there any evidence of disease of the urinary tract.

—La Gynecologie, Oct. 15, '97.

POST-PARTUM ECLAMPSIA.

Lemichez puts on record a case in which a woman, aged 22, developed post-partum eclampsia after a normal labor, which had been followed, however, by rather severe after-pains, necessitating the giving of opium. She made a slow but complete recovery. This was the patient's third pregnancy, and it is noteworthy that her first labor (forceps) had been complicated by eclampsia, and that the attacks had continued into the puerperium, notwithstanding a free natural hemorrhage at the time of delivery. Her second gestation had been accompanied by slight edema of the ankles, but had terminated normally and without incident. In the third pregnancy the attacks of vomiting had been persistent and very troublesome, and she had suffered for three months from almost continuous headache. These phenomena occurred before she came under medical treatment in the Maternity Hospital.

—Journ. des Sc. Med. de Lille, November 13, 1897.

CLEANLINESS IN CATARRHAL AFFECTIONS.

One of the fundamental principles in the treatment of catarrhal troubles of the nose and throat may be summed up in a single word, "cleanliness." To permit secretions to remain on the surface of the inflamed mucous membrane is to increase the existing irritation and delay the healing process. The retained mucus and crusts form a fertile

soil for the growth of microbes, and, after undergoing decomposition, act as severe irritants. It follows, therefore, that means should be taken to remove these inflammatory products and keep the mucous membranes as clean as possible. All rough manipulation should be avoided—the object is not to scrub off the mucus and crusts, which are often quite firmly adherent, but to dissolve them and wash them away. For this purpose an alkaline antiseptic solution, such as bensolyptus (Schieffelin's) is especially indicated. Experience has shown that an alkaline fluid is not only the best solvent for mucus, but also exerts a soothing effect upon the inflamed mucous membranes. In bensolyptus these beneficial effects of the alkaline ingredients are supplemented by its antiseptic and anticatarrhal properties, in consequence of which it arrests all growth of microbes and facilitates the process of healing. In the various forms of rhinitis, pharyngitis and tonsillitis, bensolyptus has proved an important auxiliary in the treatment by promoting cleanliness, allaying irritation and preventing bacterial infection.

Bensolyptus is the outcome of careful experiments made in the laboratory of Schieffelin & Co., to produce an ideal alkaline antiseptic fluid, and the high reputation enjoyed by the products of this firm for over a century renders any further comment unnecessary.

TREATMENT OF ARTICULAR TUBERCULOSIS BY THE ROENTGEN RAYS.

Kirmisson has recently communicated the case of a young man, aged 17, affected with tuberculous arthritis of the wrist. The joint was much swollen, measuring over nine inches in circumference, and the integument on both its dorsal and palmar surfaces presented numerous fistulous openings. The joint was exposed daily to the x-rays for 15 minutes. During this treatment, which was continued for two months and a half, there was a rapid diminution of the fungous swelling and complete cicatrization of the sinuses on the dorsal surface. After an interval of five months, when the patient was again seen by the author, the patient, though much relieved, was not cured. The subsequent application of an elastic bandage was speedily followed by complete cure, all the sinuses closing, the wrist being reduced to its normal size, and regaining all its movements. In the discussion on this communication the good results were attributed mainly to the rest of the limb and its conservative treatment, from which in young subjects greater success may be expected than from any operative measures.

—Bull. et. Mem. de la Soc. de Chir. de Paris, Nos. 1-4, 1898.

THE PREVENTION OF HERNIA AFTER LAPAROTOMY.

Volkovitch regards the ordinary methods of incision in abdominal section as the great cause of subsequent weakness of the abdominal walls and the formation of herniae. In place of the incision along the linea alba he recommends an incision through either rectus. The wound is closed by a series of sutures at different depths. The first series of interrupted sutures takes in the peritoneum and the inner layer of the rectal sheath. The second series of interrupted sutures unites the remaining layers, with the exception of the skin, which is stitched up separately by a continued suture. In operations on the lateral regions of the abdomen the principle to be observed is to separate the tendinomuscular structures along the course of their fibres, as each layer comes into view, and not to divide the muscular fibres across in the plane of the wound, as is usually done. Taking the lower lateral region, for instance, all incisions should have the direction from above downward and inward—that is, parallel to the fibres of the external oblique, which are then separated along their course. To ensure sufficient room for the same procedure with the underlying layers it is necessary to make the first incision somewhat longer than usual. The margins of the external oblique muscle are then forcibly drawn apart with retractors, and this separates them from the under-

lying internal oblique muscle. The latter is then opened up in the same way along its whole length, from the spine or crest of the ilium to the sheath of the rectus. The margins are again drawn apart with retractors, and the transversalis comes into view. As this muscle is continued inwardly as an aponeurosis the separation of the fibres toward the rectal sheath has to be done with a knife or scissors. The direction of the last fissure is transverse, and the peritoneum is divided in the same line. To prevent it from slipping under the tense muscular margins during the course of the operation, it is fixed to the muscles by a few temporary stitches. The wound is closed after the operation by a series of sutures in layers. The first series unites the peritoneum and the transversalis muscles, the second the internal oblique, the third the external oblique; the fourth, unlike the others, is a continued suture, and includes the skin only. In some operations in this region—as, for example, for the removal of the appendix vermiformis—the above method does not give quite enough room. In such cases the author recommends the enlargement of the wound by continuing the last transverse incision through the rectal sheath, and even through the margin of the rectus muscle, and not the addition of a longitudinal incision along the outer margin of the sheath, as recommended by some surgeons.

—Vratch, No. 5, 1898.

EXERCISE TREATMENT IN NERVOUS DISEASES.

Goldscheider more especially refers to tabes dorsalis and some other diseases. He maintains that the ataxia is due to a disturbance of the muscular sense. He first learned to use exercise treatment in V. Leyden's clinic, but this method has been subsequently largely extended by Fraenkel. In the so-called paraplegic stages of tabes slight flexions and extensions, etc., of the limbs may be made when the patient is in bed. Help may be given by lightly supporting the thigh or leg. A chair may be inverted over the foot of the bed, and the patient can then exercise himself in touching the cross bars or by putting the feet in between them. The movements are first made with the eyes open and afterward with closed eyes. Ample periods of rest mu stbe allowed, so as not to produce fatigue, otherwise an exhaustion lasting over several days may result. The author confirms Fraenkel's opinion that even in these advanced cases improvement may be produced and the patient may even walk again. Some patients do not improve, and sometimes the exercises have to be given up owing to the pains which are apparently induced by them. In less advanced cases various movements may be practiced to improve the gait, and the author figures many pieces of apparatus adapted to this end. A chair on four legs with rollers may be useful. The treatment must be persisted in over long periods of time. The chief point lies in many movements performed without fatigue, and with intervals of rest. The author draws attention to the absence of the sense of fatigue. In some patients there is an atony of the muscles, and here electricity and massage must be employed as well. The knee and hip joints may be supported by bandaging. The author then refers to the treatment of intentional tremor by exercises. He looks upon this tremor as closely allied to ataxia, and as capable of improvement by exercises. In chorea some improvement may also be produced, but the exercises should be carried out only once in the day or once in two or three days. The good effects of this treatment in writers' cramp are well recognized. In athetosis also some improvement may be produced by long-continued exercise treatment. In speaking of paresis and muscular atrophies the author draws attention to the value of exercises carried out in a bath, and especially in peripheral neuritis. In neuralgias, etc., exercises, particularly of a passive form, may be useful. In articular pains left after rheumatism, and more especially after contusions, this treatment is valuable. Goldscheider thinks that much more attention

should be given to exercise treatment.
—Deut. med. Woch., 1898, Nos. 4 and 5.

BINIODIDE OF MERCURY AS A SUBSTITUTE FOR POTASSIUM IODIDE.

Hobday says the great objection to the use of potassium iodide in veterinary practice, especially for the larger animals, where full and repeated doses have to be employed, is its expense. About two years ago, in the course of conversation, Professor Edgar, of Dartford, observed that he had been using the biniodide of mercury as a substitute for potassium iodide in the treatment of actinomycosis, and that he found the treatment to be attended with an equal amount of success. The recipe used consisted of from two to six grains of biniodide of mercury dissolved in an ounce of water by the aid of from five to ten or twelve grains of potassium iodide. Hobday has been able to collect a fair number of instances in which it has been tried successfully on cattle suffering from actinomycosis. In the treatment of chronic elephantiasis and of tumors of the shoulder and elbow the biniodide has been used in the clinic at the Veterinary College as a substitute for potassium iodide, and an equal amount of success has been obtained, together with the advantage of obtaining the alterative effect of the mercury. Professor Edgar has also tried it successfully in the horse for the dispersal of glandular enlargements, for capped elbows, and for scirrhous cords; he has also found it a valuable agent as an astringent to the lacteal secretion in mares and cows. Summing up the results Hobday concludes: (1) That the agent is very much cheaper to use than potassium iodide, (2) that the results which he has been able to collect regarding its value in actinomycosis confirm those which Professor Edgar had already obtained, (3) that the observations which Professor Edgar and himself had been independently making at the same time upon its therapeutic effects as a resolvent, specific and alterative in certain diseases of the horse, appear to demonstrate its value, and to agree in almost every detail, (4) they have each found that, as is frequently the case with potassium iodide, failure to continue with the medicine for a sufficiently long time may cause a relapse, the tumors again enlarging.
—Journ. Comp. Path. and Therap., Dec., 97.

HYOSCIN AND HYOSCYAMIN AS MYDRIATICS.

Emmert is surprised at Landolt and Gygax saying in their recent "Pocket Book of Therapeutics for Ophthalmic Surgeons" that "hyoscin and hyoscyamin have been abandoned, owing to their uncertain action." For the last 16 years Emmert has found hyoscin to be the most constant and reliable mydriatic we have, and this has been the experience of many others. As the hydrobromate it is a very stable salt, and has been introduced into both the Swiss and German (under the name of scopolamin, which is identical with hyoscin) pharmacopeias. Its advantages over atropine are (1) It dilates the pupils more quickly, (2) the mydriasis does not last so long, and the paralysis of accommodation lasts about the same time, and this is an advantage for healthy eyes; (3) it cures inflammatory affections of the eye quite as quickly as atropine, (4) even if used for a long time it has no local irritant action (as "atropine conjunctivitis"); (5) it is five times more powerful, (6) used in solutions as strong as 1 in 500, or even 250, any general intoxication is very rare, and even if present quickly passes off and is not dangerous; a solution of 1 in 1000 is usually sufficient, and never causes poisoning; (7) intraocular tension is not influenced in chronic, though hyoscin is contraindicated in acute, glaucoma; (8) instead of stimulating the cerebral cortex and quickening the pulse like atropine, it has a paralyzing action on the former and slows the pulse, and hence is much safer in heart disease. Considering the weaker solutions required, it is practically as cheap to use as atropine. As regards hyoscyamin, its little use as a mydriatic is not due to an uncer-

tain action, but because it has no advantages over atropine.
—Correspondenz-Blatt. f. Schweiz. Aerzte, Feb. 1, '98.

A NEW PATHOGENIC MICROBE (TETRAGENES CITREUS).

Vincenzi describes a new pathogenic organism found by him in a suppurating submaxillary gland of a child, aged 3 weeks. Three other varieties of tetragenes (t. senticus, albus and aureus) have been described by authors in connection with suppurating glands. The present variety is distinguished by its color. It shows itself as a coccus dividing crucially into groups of four. It is not stained by Gram's method. In some specimens a capsule could be detected. It grows well in all the usual nutritive media. Gelatine is softened by it, but not truly liquefied. It grows in milk without coagulating it and giving a citron-colored sediment. It is quite innocuous for animals. Infection in the author's case probably occurred through the mouth.
—La Rif. Med., Dec. 17, 1897.

WAYSIDE NOTES.

BY ERNEST B. SANGREE, A. M., M. D.

Although German doctors as a rule affect to have a low opinion of the medical knowledge of American physicians, they evident have the best possible of our integrity. Of this fact I have had several striking illustrations.

The first year I was in Berlin I had no microscope, and went to a large instrument store to see if I could hire one. I could speak only a few words of German—enough to say haltingly that I was working with Dr. Hauseman at the City Hospital. Judge of my surprise when the proprietor of the store at once replied that it would give him pleasure to let me have an instrument, and without even asking my name or where I lived or how long I expected to stay in Berlin, handed me over a valuable, though somewhat old-fashioned, microscope, and protested that he would not hear of such a thing as my paying him for the use of it.

Where in all America, thought I, could I discover a man who under similar conditions would act in a similar manner?

Another year at Vienna I noticed that when I made arrangements to take some particular course with any professor or assistant at the university, the man was satisfied simply to put my name down on his book, tell me the price of his course and say nothing more until it was finished. This I noticed was the usual custom. The teacher might not know the address of a single one of his students. Seeing how easy it would be to take a course or part of it and then leave without the formality of paying, I made some inquiries on the subject and own I was surprised to learn that a tradition obtained in the medical department of the university to the effect that no American had ever cheated in this way. To tell the truth, this gave me a better opinion of my countrymen than I had possessed before.

Perhaps even more trustful are the methods of Professor Kolisko, in Vienna, who gives demonstrations in gross pathology. He charges a gulden the lecture. They take place about three times a week, and he may have a class varying from five to twenty. He takes the student's name, but keeps no roll of attendance, and expects one to pay only for the lectures one has attended. About once a month he collects his fees, and at that time he asks: "How many have you attended?" to one, and "how many have you?" to another, and according as the answer is he says so many guldens and so many. To see such trustful confidence is quite touching, and I certainly hope, for the sake of the honor of our side of the Atlantic, that the tradition to which I referred has indeed a true foundation.

Book Reviews.

Hugh Wynne, Free Quaker, some time Brevet Lieutenant Colonel on the staff of his Excellency, General Washington. By S. Weir Mitchell, M. D. L.L.D., Harvard and Edinburgh. New York. The Century Company, 1897.

Dr. Mitchell has given us in Hugh Wynne an exceedingly interesting and entertaining story of Revolutionary days and portrays vividly Colonial society with its Whig patriots, Tory traitors and hypocritical sympathizers.

As a history, of course, it is more or less overdrawn, particularly in the character of John Wynne, Hugh's father, and one or two others, but as a society novel of the times it will live as a lasting monument of the erudition and fortunate possession of historical facts and social incidents of those most soul stirring times and one feels after reading the book a more intimate acquaintance with our great and glorious Washington and a sadder insight into the fate of poor Andre and treachery of Arnold.

Dr. Koonse, LaFayette, Ind., offers to send free for a limited time to any practicing physician, his new booklet on the Opium, Morphine, Whiskey and other addictions, outlining the only perfectly safe and positive cure. This treatment is used only through the medical profession; has been tested by 2,000 physicians and their verdict is "simply wonderful." Write (enclosing stamp) for book "How Cured," clinical reports and full particulars. Doctor, if you are interested in this offer, write at once.

THE AMERICAN CARLSBAD.

(From Town Topics.)

Virginia Hot Springs has practically become the Carlsbad of America. It is likely to become more than that. It will be the Homburg. By this I mean that it is to become a fashion centre, as is Homburg, as well as a great cure resort, as is Carlsbad. The wealthy men who own the property are sparing nothing to make it not only the most comfortable of resorts in the way of excellent hotels and cottages, but to afford by provision for entertainment and sports a delightful rendezvous for the fashionable seekers after recreation. The character of ailments for which the waters of these famous springs are almost infallible cures, gout, rheumatism, etc., are not those that make the patients for treatment disagreeable companions. The climate is such that at any time of the year the resort is agreeable, while its great altitude and consequently dry air make it for the damp days of the spring and autumn season almost without exception the most desirable of any in America. In autumn it is like Lenox, "only more so." In spring it has no counterpart that is accessible and so well supplied with all creature comforts. In fact, the place is becoming a fad with society of New York, and I understand that the engagements for March and on to the summer exodus to Newport and Europe are such as to be likely to tax the hotel and cottage accommodations quite to their full capacity.

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Original

BALL PLAYERS' PARALYSIS.

BY S. H. MONELL, M. D., BROOKLYN, N. Y.,

Chief Instructor of the Brooklyn Post-Graduate School of Clinical Electro-Therapeutics and X-Ray Photography, Fellow of the New York Academy of Medicine, Etc., Etc.

So far as I am aware no contribution to the medical literature of this subject has yet been made. Treatment, if any, has been confined to the crude and futile measures of rest and rubbing, and no scientific therapeutics has yet been considered. Yet it is a perfectly curable condition. I shall here state my view of the real nature of the lameness commonly called "glass arm" and "Charlie horse" and indicate the principles of treatment which can be successfully applied.

When a healthy person does some unusual and severe muscular work the muscles are tired, stiff and lame the next day. Rest and gentle exercise gradually remove the soreness and restore the muscles to a normal state. But if over-use is continued day after day the nutrition of the tissues does not keep pace with the waste of wear and rest becomes less and less effective. When the nutrition is impaired but little the person feels "stale." When "chronic fatigue" advances to a second stage the "glass arm" is developed.

When over-use is still further pushed beyond endurance the muscle fibres do not regenerate by any amount of rest and a paralytic state is now established. Rest not only fails to cure the arm, but after a long rest the muscles are less able to work than before. The beginning of the lameness is "acute" fatigue, the second stage is "chronic" fatigue, the final state is a "disease," which requires a restoration of the powers of nutrition for its relief. Rest is useful at first, less

so in the second stage, and useless to repair an arm when the muscle fibres are exhausted.

For the past five years I have made a special study of kindred affections resulting from excessive use of muscles in different occupations. The principle of treating them all is alike, no matter what occupation causes the trouble. If we can give back to the nerve cells and elementary muscle fibres of the affected parts their natural power to offset work by rest, i. e., restore nutrition, the result is a radical cure. An arm restored in this manner can again be used for all purposes. If it becomes again fatigued by over-use it can again be artificially rested and regenerated, and by a few treatments, as need arises, it can be kept in working condition year in and year out. The same remarks apply to the stiffening leg muscles of fielders or runners who get what is called "Charlie horse," a term expressive though not scientific. In Chapter XXV of my "Manual of Static Electricity in X-Ray and Therapeutic Uses" I have called the attention of physicians to the great value of electro-muscular and nerve stimulation in training for contests of skill, strength, speed, endurance and dexterity, but the subject of the present article relates, not to stimulation, but to restoring the nutritive forces of tissues so that they will properly recuperate from fatigue. Medicine is obviously powerless to restore the nutritive forces when nature fails. Massage, indeed, aims in the right direction, but is like aiming a pistol at a whale, for it is not penetrating enough to be effective. Rest is the most costly, tedious and disappointing plan of treatment that can be pursued, for the symptoms return when work is again begun. Rest abates, but does not correct the trouble. Liniments, lotions and salves act with massage to produce temporary comfort, but not permanent strength. There is but one remedy for practical consideration, and in the hands of a master of technique it is an unfailing and satisfactory remedy. The sovereign control of electric currents over nerve and muscle nutrition is too well known to require more than mention, but the art of employing the right current in the right manner with the correct dosage, to produce the desired effect, is one that only special training can give the physician. Just as a strong man cannot strike a swift ball unless he has the training of a ball player, so even a skilled physician cannot successfully produce nutritional effects with electric currents unless he has the experience of a trained electro-therapeutist. It takes both skill and scientific apparatus, but when the method is understood it is a simple matter.

The essential currents are the galvanic and static. The ordinary faradic battery does not possess the necessary therapeutic properties and will not cure these cases. The technique I employ involves three steps:

1. The general muscles of the arm or legs are given a light, warming up stimulus to the circulation to prepare the muscles for nutritional contractions, for the life of muscle is "contraction."

2. The muscles are subjected to energizing contractions which tend to restore the activity of natural nutrition.

3. The whole limb is then "rested," refreshed and made elastic, light and buoyant by a counter-irritant static spray.

It is vigorous and agreeable treatment and quickly produces an improvement. In a recent case of acute fatigue all lameness can be removed by two or three treatments with static electricity, often by a single treatment, as I have many times demonstrated. The early practice of a team can thus be greatly facilitated. In a more advanced stage when the arm suffers from wear and the player must either lay off or accept another position, a couple of weeks' treatment, without omitting a game, will keep the arm at work and bring it up to par. In later stages, when the arm muscles no longer respond to the will and a good throw is absolutely impossible by any effort of the player, the amount of treatment required will

be much greater, but the result will be equally good. Completely lost functions of muscles recover slowly, as the nature of the "disease" is slow, but during a winter season of rest and treatment even the worst arm could recover and repeat in the following summer the best work of its life. As, however, an ounce of prevention is worth a pound of cure it will be wise to pursue the plan of a week or two of treatment at the beginning of each season when the arm is known to be impaired, and repeat it at any time later in the season when the muscles do not rest quickly after active work. It is especially important to pitchers, whose throwing muscles are put to the greatest tax, but is also significant to the more numerous victims of "stale" running muscles. All athletes who become what is called "stale" from over training or excessive work can be benefited more completely by one or two months of treatment with galvanic and static electricity than by one or two years of ordinary rest.

Treatment requires about 15 minutes' time. It produces its maximum benefits gradually. It must be given daily at first. It produces some benefit at once, more perceptibly in mild cases than in chronic cases, but it is a method which is entirely adequate to restore the nutrition and normal muscle function of any case of ball players' paralysis, no matter how long the trouble has existed. The only difference is that it takes a longer time to restore chronic cases than recent cases. An improvement that two weeks will impart to a recent case may require two or more months of treatment in an arm which has been affected badly for several years. The value of early treatment can therefore not be over-stated, nor should I omit to say that men whose talents have not deteriorated, but who have fallen to a rear rank on account of an impaired arm or stiffened muscles can revive their prestige and renew again the triumphs and salary of their best days. It is only a question of proper restoration of nutrition, and this can be accomplished by the aid of electricity. The affection is sufficiently frequent and important to receive the attention of physicians.

—865 Union st.

A CASE OF SUPPRESSED SCARLET FEVER.

J. J. MORRISSEY, M. D., NEW YORK,
Visiting Physician to St. Joseph's Hospital.

In the ordinary course of a practitioner's life he is apt at times to be summoned to cases possessing extraordinary interest, either on account of the exceptional features presented or because of the rarity of the disease. On January 18 I was called to see a child 3 years of age who had been vomiting quite freely for some hours, the inception of which had been preceded by a slight chill. The ordinary domestic remedies had been used without effect and as the child appeared to be more intensely ill than could be accounted for by the mere "attack of indigestion," as the mother phrased it, the writer was sent for. The child was seen in the mother's lap, with eyes half closed, which were fully and consciously opened when addressed. The respirations were rapid, the pulse about 130, the temperature 103. Pneumonia being suspected a careful and exhaustive examination failed to disclose any of the readily recognizable physical signs, and a search for the eruption of the exanthemata was equally fruitless in results. History of an injury was inquired into, but with negative findings. Diphtheria was excluded. Pneumonia appeared to be the safest factor to hold in re-

serve, and after prescribing for the child I left with the caution to send immediately if a convulsion occurred. Some five hours afterward I was hastily sent for, and found every symptom of the morning visit accentuated and intensified to a remarkable degree.

In addition the entire body was covered with a purpuric eruption, as if the child had been beaten. Convulsion followed convulsion, the pulse was practically uncountable, the rectal temperature registered 108.2 degrees. The most energetic treatment, by the application of ice, cold douches, etc., failed to produce the slightest effect, as the child was practically moribund and died within 20 minutes.

The question at once arose: What form of poison produced such virulent symptoms? We know that cerebro-spinal meningitis frequently causes just such an accumulation, while the onset of scarlatina is oftentimes associated with the malignant symptoms described above.

On carefully inquiring as to the presence of the latter I was informed that another child 5 years of age had been complaining for a couple of days, but his illness, slight in character, had been ascribed to that constant concomitant of children's ailments, namely worms.

I examined him carefully and found a mild but typical case of scarlet fever, with the eruption distinct, but fading. The tonsils were reddened, but free from membranes, the temperature slightly elevated and pulse practically normal. On pointing out the rash the mother at first was inclined to scout the presence of the scarlet fever, but when I demonstrated the first tracings of desquamation she reluctantly consented to the justice of the diagnosis. The child's recovery was uneventful, rapid desquamation of the entire body taking place in the next few days.

The variability of the intensity of the scarlatinal poison was never better illustrated. Two children of the same family, with the same environment, one 5, the other 3, years of age, both healthy prior to the attack, and yet in one the most favorable soil for the intensest activity of the germs was found, while in the other there was just sufficient manifestations to make the diagnosis positive. This might have been questioned if the confirmatory evidence afterward adduced had not declared itself.

NOTES ON LONDON AND VIENNA HOSPITALS.*

BY JOHN E. SOMERS, M. D., CAMBRIDGE, MASS.

The subject of my paper has been heretofore so many times thrashed over, and that, too, so well and so carefully and thoroughly, that I fear I shall find it somewhat difficult to add anything new that will be of interest or of value to you as a medical body. That London is a great medical centre is beyond question, but that London is not a great medical teaching centre for post-graduate work is also as much beyond question. Post-graduate teaching is not organized, not systematized, at least not in the manner nor to the extent we would have a right to expect in such a large centre of population. To be sure, in a certain few specialties excellent work can be done. As, for instance, at Moorfield's, with Morton at its head, assisted by an able corps of teachers, one can accomplish much on the eye. I think I need not hesitate to state that the course here given stands well abreast of any such course in any European city. At the London Central Nose and Throat Hospital anyone desiring to do special work in these lines will here find for himself a well arranged course, with unlimited clinical material and an able body of men as instructors. At St. Bartholomew's Hospital a medical man will find a grand course on pathology and bacteriology. Splendid work can be done here, for the course is very thorough and complete. This course is in connection with the medical school of St. Bartholomew Hospital. This special ticket entitles you to the free entree to the whole hospital, so far as going through the wards with the visiting physician and surgeon, the seeing of all surgical operations performed at the hospital, and so forth. In diseases of children one can find abundant opportunity for good work in the Hospital for Diseases (both medical and surgical) of Children, situated in Queen square. This hospital has a fine staff, and of that staff I am convinced that Mr. Owen is the best man with whom to associate yourself. St. Mark's Hospital is devoted exclusively to diseases of the rectum. A fine grade of work is done here by an able staff. In the out-patient department the clinical cases range in number from 45 to 85 per day. I know of no better place to acquire a special knowledge of this. St. Peter's Genito-Urinary Hospital, with only 29 beds, has the largest out-patient department in all London. In the out-patient department you find that the larger proportion of the cases is composed of venereal troubles. Lithotrity and lithotomy are here performed oftener than in any other London hospital. And I might mention in passing that St. Peter's has the largest-sized private collection of stones in the world, the largest public collection in the world being at the pathological museum of the College of Surgeons, in Lincoln, innfields.

Mr. Hutchinson gives at Portland Road every Wednesday at 4 P. M. a free talk on skin diseases, with illustrative cases, to which all physicians are invited. This is a most decidedly interesting and instructive clinic.

It may surprise many of you to know that Mr. Hutchinson, with whom you are all acquainted as a celebrated skin specialist, was at one time visiting surgeon to the London Hospital, and he was considered a very able and dextrous operator. This incident in his life only further illustrates the wonderful versatility of Mr. Hutchinson.

This comprises about all that is to be found in the way of system-

*Read before the Gynecological Society, of Boston.

atized work in London. In internal medicine and surgery a medical man must only jump around from one hospital to another, picking up what he can and as best he can in the various lines of his profession. Much time is wasted in trains and on busses in getting from one hospital to another. This under present conditions is unavoidable, as the city is so large and the hospitals so widely scattered apart. This is a serious hindrance to profitably occupying your time from day to day. Of all the London hospitals St. George's has by far the finest operating amphitheatre. It forms a semi-circle, with marble seats, the perpendicular piece supporting the seat is also marble, with iron railings in front. The walls are all of fine quality of tiles. The floor is in part inlaid and in part rolled mosaic. In addition there are attached three rooms finished in the same manner, as large as the amphitheatre. The first is the antiseptic preparatory room, the second the etherizing room, and the third a small operating room. The instrument cases are air tight. It is heated by steam, and the radiators are so arranged that they can be swung out into the centre of the operating room. The air enters through fine screens, so that particles of fine dust and so forth are prevented from entering. With the single exception of the Symes operating room, this is finer than anything this country can boast of in the way of an operating amphitheatre, unless it be some of the newer Philadelphian ones.

The operating rooms of most of the large hospitals will, I think, average better than ours. Some, of course, are much below par, as, for instance, that at the University College Hospital, which is decidedly poor. At the Middlesex Hospital an arrangement exists by which the air in the operating room is changed every four minutes. This is accomplished by means of fans run by steam power. While a renovating and modernizing process has been going on so far as concerns their operating rooms the wards remain in most instances innocent of any attempt upon the part of the mechanic or mechanical engineer to bring them in touch with modern progress. The London Temperance Hospital was about to begin the construction of a ward composed entirely of a glass surface, the glass pieces to be about the size of a brick and set in a base.

Another notable exception is in the case of the Children's Hospital, in Queen Square, where the walls are of glazed tiles of fine design. The utility of such improvements is obvious, but costly.

The London Hospital, situated in the Whitechapel district, with a capacity for 1000 patients, is the largest in London. Next in size comes the St. Thomas Hospital, built in seven sections, or separate buildings, each connected with the other by a closed corridor and an open veranda, which can be closed by glass in winter, and acting as a means of outdoor air and exercise, as well as the connecting link between the buildings. The original intention was to treat only one line of medical or surgical work in each building. This was not found to be feasible, and was after a time, in part at least, abandoned.

The hospitals of London are all supported by private charity. To me this is a most surprising thing to find a city with a population of nearly five millions supplied with adequate hospital facilities for the treatment of every ail, both medical and surgical to which man is heir. It shows two things; first, that the people must be most liberal and charitable, and, second, that their public charities from a financial standpoint are well organized.

What I have stated here is not after all entirely correct, for the hospitals for the treatment of contagious diseases are supported by the city. They are sufficient for all needs, finely equipped, fulfil all requirements, and are located on the outskirts of the city. And, speaking of this matter, I do not think we shall accomplish the most that can be accomplished in the treatment of contagious diseases until such cases are, as far as possible, treated in hospitals constructed for the purpose at the public expense. I mean by this, either by the town, the town-

ship, the city or the State. It will be answered that this would be preposterous that the State should be called upon to undergo such an enormous expense. And, again, it will be answered that you cannot get the people to carry their patients to such hospitals, even if a place were reserved where the mother, if need be, could remain with a case of diphtheria or scarlet fever, for instance. To the State my life has a certain monetary value. This is admitted by every man who has given the question of population as related to commerce and the life of a nation, any thought. Now, I think that taking scarlet fever as an example—a disease where it is practically impossible to maintain a successful quarantine in the home for seven or eight weeks—that it is not practicable among the masses of our people for the mother in the large proportion of cases is the nurse as well as the housekeeper. Suppose she has three or four children. She cannot avoid more or less close contact with the unaffected children, and she is therefore a constant cause of contagion to them, and the conditions existing in the house are causes of contagion, and the excreta, we may well say not at best completely free from disease-bearing germs by our present method of treating them, cast into our public sewers, may later possibly be a cause of menace to life. By hospital treatment these causes of the spread of the disease could be removed and the dejecta, the expectoration and the excretions destroyed by incineration. Our sewers would then cease to be receptacles for further pollution of this character. We would then, by slow degrees to be sure, stamp out this most malignant enemy to the health and life of the nation. I hope that many years will not lapse before this can be made a practical proposition.

The London medical man strikes you as haughty and entirely unapproachable, and you in turn are entirely mistaken, for underneath that cold demeanor you will later discover a warm-hearted gentleman. He has his faults, of course. That is nothing. His ancestry is ancient and his pedigree is long. He never descends to frivolity. He is too pondrous to comprehend a joke. That would be "infra dig." He moves about in the outside world but little. That is in the little world outside of London. His knowledge of American medical men and literature is limited. He never for a moment loses consciousness of ownership in the whole world, never for a moment lessens in the strength of his belief that the Lord first built the British isles as a nucleus, and then created the rest of the world around it. These little vanities, these little sentiments do not detract from the work of the man. He is always courtly, never condescending or patronizing in his manner. He is too much of a gentleman for that. The English surgeon as you enter the operating room strikes you as a rather formidable personage, and you secretly wonder within yourself whether or not you dare ask any privileges of such a man. However, you will find that when the thin coating of ice with which he is invariably covered has melted away there stands revealed a very fine fellow, and although still reserved always glad to be of assistance to you.

The system of nursing is by a guild or sisterhood of the English Church, and is free in every respect. Some of the men object to the system on the ground that their religious services interfere with their work, and especially so in emergency cases, as if it is time for religious services these services must take precedence of any case, no matter how urgent. They have in most of the hospitals a small chapel. This matter caused a great deal of trouble about the time I was in London. The hospitals made a general movement in the matter and as a result in some of them the guild was removed and paid nurses substituted.

I was much surprised to find in the former home of chloroform the almost universal use of ether. Every hospital employs an anaesthetizer with a fixed yearly salary. With him, and not the operator rests the responsibility in case of

accident from the use of an anaesthetic. The etherization is begun with nitrous oxide gas, and continued until the patient shows marked indications of insensibility, when the ether is substituted. An inhaler is used containing ether, and with a rubber tubing leading to the cylinder of nitrous oxide gas. When the proper time comes to do so the gentleman in charge, simply by the turning of two ratchets, removes the gas and turns on the ether. An anaesthesizer of many years' service told me that it took only from one and a half to three minutes till a patient was ready for operation. This I believe is a distinct advance over our methods.

From time to time I made some records of the temperature of operating rooms during the time an operation was being performed. The lowest temperature at which I saw operation done was 56 degrees, and the highest 72 degrees. The temperatures ranged between these two points. This is crtainly very surprising, and does not correspond with our ideas of such matters in this country. The antiseptic work is of the dry kind as a rule. Everything is baked dry. The character of the work in this direction is fair, but hardly, I think, up to the standard attained in our large cities. The asepsis, generally speaking, is good, though there is, I think, room for improvement. In some of the hospitals you would be correct in stating that the work in these lines is excellent, in others mediocrity obtains, and in others it is positively bad. For instance, in one hospital I witnessed the edifying spectacle of a surgeon doing a curettment and perineum with his coat and cuffs on. This was crudely done, with a futile attempt at antisepsis and an almost entire absence of asepsis.

The sanitary conditions of the various London hospitals is hardly up to the standard required in these times. For instance, at Guy's I found conditions which must be considered a disgrace to a modern civilization. They labor under the disadvantage of in most instances having very old buildings to work in. The wards are fairly clean, but do not stand in this particular on a par with our hospitals.

The English surgeon as a rule operates with care and is sufficiently conservative, but he lacks in most cases that dexterity, grace and finish found on this side of the water. I saw Mr. Walsham at St. Bartholomew's do an operation for paralysis of the tendo Achilles. He bored the tendo Achilles and also the tendon of the perineus longus. He then cut an opening in the tendo Achilles and cut the tendon of the perineus longus opposite the point where it passes behind the external maleolus. He then transplanted the tendon of the perineus longus to that of the tendo Achilles, passing it through the opening in that tendon and sewing it to it with chromicized catgut. The joint was then done up in plaster to remain for a long period, the object being of course, as you know, the substitution of the work of one muscle for that of another. Mr. Walsham said that he had already done one with very satisfactory results. He also said that three cases had been reported from New York, two of which were successful.

I saw Mr. Gould at the Middlesex hospital treat an iliac abscess by the aseptic method. He first made an opening in front and then one behind, and emptied the pus. He then carefully wiped out the cavity with gauze sponges, following this by curetting, and douching, all done with exceeding care and the expenditure of much time. He then sewed both openings and put on an antiseptic dressing.

I saw a number of surgeons do hernia work. Each seemed to have some little point, or, as he thought, big point which was far in advance of his compeers. Mr. Gould laid great stress upon drawing out as much as possible of the sac and then sewing in the usual way. Mr. Colles, at Guy's, laid great stress upon anchoring the stump underneath the muscle as far as possible toward the median line. He anchored it in very much the same way as you would do in anchoring the uterus in a case of ventro-fixation. Another anchored the stump

in a perpendicular line above the ring. Mr. Shields, of St. George's, anchored the stump as far as possible toward the median line. In sewing the skin he made a loop stitch with horse hair and took in quite a welt of skin in doing so, and this was the part that he considered important. Possibly you may be able to see what earthly good such a procedure would do. I could not. This hernia work, I am satisfied, is not by any means as well done as it is in this country. Mr. Jasset, of the Cancer Brompton Hospital, has invented a reamer for the purpose of turning out the cervix in cases of cancer, which are too far advanced for the radical operation. This reamer is constructed on the principle of the egg beater that works with a crank, only instead of being circular it is oblong. He simply turns the handle and reams out, so to speak, the whole cervix, so that after the operation you can look into the uterus if sufficient light were supplied. There is nothing but part of the thin wall of the cervix left. He then fills with (chloride of zinc paste). I saw him do this a number of times. The idea was new to me, and so I mention it. I was struck by the wonderful unanimity with which every man claimed that by his particular and, of course, original method of sewing up the abdomen there resulted always is a distinct success, with never a ventral hernia "to stalk the fields by night." Such a thing as a ventral hernia occurring in his work by his special and original technique was entirely outside of the possibilities. Cullingsworth first puts in a through and through silkworm stitch. He then, before tying them, sews together by an interrupted catgut the edges of the muscles, carefully adapting them. He then ties his silkworm gut stitches. I asked him how the peritoneum was brought in apposition by his method. He said the silkworm was sufficient to accomplish this and that in three years by his method he had never had a ventral hernia. This is merely illustrative of the others. In London a great deal of dressing is put on in such cases. I saw Treeves at the London Hospital do an appendicitis between the attacks. After completing the work he said: "We will now proceed to pile on a large amount of dressing. The feeling in our city is so strong in this direction that if it is not done and anything untoward happens you would be strongly censured, but there is not the slightest necessity for it." Such a man as Treeves I thought ought to be strong enough to rise above public medical opinion.

To sum up, if the Londoner in medicine or surgery would leave home more, would travel more, he would receive much benefit. However, with him there is one difficulty. Information to him must not only be correct and authentic, but it must come through a thoroughly accredited channel, and America does not comply with these conditions. Such provincialism is deplorable. But you must not blame him, for his prejudices are part of his inheritance.

(To be Continued.)

Editorial

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MODERN ADVANCES IN GASTRIC SURGERY.

Not long since was recorded one of the greatest feats of modern surgery, in which Schlater, of Zurich, performed successfully a complete gastrectomy for malignant disease of the stomach. The patient, a woman of 56 years, recovering the full digestive activity of the alimentary tract, and recovering in three weeks after operation twelve pounds of lost flesh.

Now comes, immediately after that, the extraordinary the records of Rutherford Morrison and W. H. Bennett, of London, of 17 successful cases of gastric surgery, in the London Lancet for February 26, 1898.

Morrison performed 11 consecutive operations for pyloric obstruction, in every instance recovery following, with ultimate recovery of full digestion and remarkable gain in weight.

Bennett opened the abdomen in six cases of perforating, gastric ulcer, sought out, exposed and closed in the ulcers.

In the former group progressive emaciation was speedily carrying the unfortunates to their graves and medicinal agents were wholly useless. In the latter, after the gastric walls were opened, fulminant symptoms promptly followed. When the peritoneal cavity was opened quantities of undigested food and putrescent material gushed through the opening.

These seventeen remarkable cases certainly constitute another triumph for British surgery, and clearly demonstrate that in many grave lesions of the stomach surgery alone can save life.

And, more, that the surgery of this organ is not only capable of great expansion, but that in skilled hands probably no organ in the

peritoneal cavity will tolerate exposure and manipulation with greater impunity.

The technique of operation is worthy of note in these cases, as showing the comparative simplicity of procedure employed. In the pyloroplastics the stenosed bridge of pylorus was freely divided and practically obliterated, its base alone being preserved to maintain and steady the surface of opposition. This procedure in benign cases will no doubt displace gastro-enterostomy, and pylorectomy in all cases of benign ulcer and cicatricial obstruction.

Bennett in closing the ulcerous openings through the wall of the stomach succeeded by employing at first a deep row of through and through suture, and then covering these by a row of Lambert through the serosa.

In one, the hole being large and with such hard, rigid walls that approximation was difficult, he plugged it with an omental graft, the result being in very way satisfactory. T. H. M.

THE NEURON AND ITS RELATION TO DISEASE.

In a valuable address upon "The Neuron and Its Relation to Disease" Sir William Gowers casts upon the entire field of pathological neurology a flood of observation that is of great interest to every department of medicine. The following is a brief abstract:

"The chief progress in pathology in the latter part of this century has consisted in the discovery of the immense extent, importance and profound influence of chemical substance produced by morbid processes. The new nerve pathology of this period is a chemical pathology. Multiple neuritis was found to be almost always the result of a chemical substance. When organisms of disease produce effects on the nervous system which are manifested by symmetrical derangement of special functions, many of the effects —it may turn out all of them—are the result not of the organisms, but of chemical substances produced by their growth. So the nerves are acted upon by arsenic and other mineral poisons and we have learned the way in which many other symmetrical results are produced by such mechanisms. These poisons have a certain proclivity to certain parts. We now see that this part is a single neuron. In locomotor ataxia we find that the degeneration occurs in two parts—in the fibres which conduct toward the cord, and in the posterior median columns. Both of these belong to the nerve cells of the posterior ganglia, and, with the cell, constitute a neuron. Thus we see that tabes is a degeneration of a single neuron, and we know that just the same degeneration is produced by some actual poisons. Hence that which we call a disease, which we recognize by changes rather widespread in the system, is simply the illustration of the affinity of a poison for one definite, nutritional unit. Another point which we understand better in the light of the new facts is the circumstance that in paralysis agitans we never get structural degeneration of the motor path, although we are compelled by all facts to regard it as a senile degeneration of the motor cortex of the brain. We now see that the spasm and rigidity must be the result of changes at the place at which the impulses arise. All we are justified in doing is to refer the morbid processes to the extremities of the dendrons, and

the nutrition and vitality of the dendron depend on the cell body. It ceases to be surprising, and it also ceases to be surprising that all search for morbid changes in the nerve cells has been in vain.

This is certainly a distinct advance in a line of thought which at one time appeared to be entirely superseded by progress made in other departments. "If disease is simply the illustration of the affinity of a poison for one definite nutritional unit," then it is time for the medical profession to awaken from its long period of hibernation and come forth to enjoy the glory and sunshine of scientific progress.

J. J. M.

SUDDEN DEATH IN ACUTE RHEUMATISM.

The occasional occurrence of a rapidly fatal termination in cases of acute rheumatism is of great interest to the general practitioner not only from a clinical standpoint, but also as to the pathological factors that underlie such a dire calamity. The writer well remembers being called in consultation some years ago to see a young man who had undergone a siege of rheumatism, complicated with pericarditis. The prognosis was considered favorable, as an abatement of the more acute symptoms had taken place, and the outlook from every point of view was excellent.

The patient had been warned not to make any sudden exertion, as the enfeebled condition of the heart demanded the utmost attention. Despite the warning he persisted in rising to a sitting posture whenever he drank. To be brief, he rose once too often, for on suddenly assuming a semi-recumbent posture, and as he was in the act of taking a glass of milk from the nurse's hand, he fell back dead.

In many of those cases of rheumatic pericarditis there is an associated myocarditis which clinically is most difficult to diagnosticate. One of the most salient symptoms is a feeling of greater oppression upon the patient's part than is usually found in pericarditis, while if cyanosis should be present, for which the condition of the lungs offers no explanation, a strong suspicion of the presence of myocarditis should be entertained. Oftentimes, too, there exists considerable pain in the precordial region, even after the effusion has become well established. Another accompaniment of the development of myocarditis is an extreme nervousness upon the part of the patient, particularly when young. Cerebral symptoms of marked intensity declare themselves sufficient at times to cloud the diagnosis, just as in the onset of apical pneumonia in children we frequently find high fever, delirium and marked restlessness; if the attendant is not on his guard he will make a diagnosis of acute meningitis and find himself in an embarrassing position a day or two afterward when the head symptoms disappear and a typical pneumonia is demonstrated. Some writers maintain that those cases in which head symptoms occur are mainly of that class in which pericarditis is associated with myocarditis. The inflammation spreads from the pericardium to the myocardium, while endocarditis very seldom leads to involvement of the muscular substance of the heart, and, again, the myocarditis may be independent of either of those pathological conditions. Careful auscultation of the left lung, especially at the base, will often in this class of rheumatic diseases demonstrate impending heart failure.

J. J. M.

THE LEGISLATURE AND HEALTH BOARDS.

No doubt the less our profession as a body has to do with the Legislatures of our States or nation the better for all; albeit, the bill before Congress for a Medical Department and medical Cabinet minister notwithstanding. Legislatures know little and care less about the concerns of our profession, and hence will pass anything through that has the "backing."

A most conspicuous example of this may be now witnessed in New York.

A few well-meaning but narrow-sighted medical gentlemen not long since pushed a bill through the Legislature which conferred on the New York Board of Health autocratic powers. They seemed to forget that health officers and sanitary officials are made of the same material as the remainder of common humanity and hence despotism and selfishness are sometimes among their most conspicuous traits.

It certainly is a problem what the outcome would have been in New York had not a loud and well-sustained protest been raised by citizens and the medical profession against the harsh and cruel exactions of the Health Board.

Probably no single factor contributed so largely to the return of Tammany to power in the late election as its insane course.

Industries were menaced and property values seriously reduced. The Board, not content with its legitimate functions, had gone into pharmaceutic manufactures and was soon clamoring for hospital facilities, apparently forgetting that its province is to prevent and not treat disease. Indeed, this department, the creation of the profession itself, in defiance of public opinion and the protests of practitioners, promulgated a code of sanitary laws intolerable and detested by every liberty-loving citizen. But reaction came and with it a backing down all along the line, and now that the Legislature has been appealed to we may expect at an early date a wholesale repeal of the most obnoxious features of the present regulations, which since New Year's have, however, been a dead letter.

With such experience before us of the grinding tyranny of health boards we can scarcely expect much chance of a National Board of Health, for whatever hopes there might have been for it in the past there are none now.

In fact, there never has been any real need for such an organization. Every State medical society is amply capable to advise its executive and provide such safeguards as occasions demand in the event of an epidemic. T. H. M.

Clinical Medicine.

In charge of DR. J. J. MORRISSEY.

ELIMINATION AS A CURATIVE FACTOR IN DISEASE.

The toxic origin of a multitude of diseases is commanding wide attention. Not only do we read of investigations being carried on in the ordinary ailments that afflict humanity, but even in the more obscure realm of nervous disorders, many of the hitherto comparatively inexplainable phenomena accompanying the development of nervous diseases are being treated on the basis of auto-intoxication. Thus Dr. Brower, of Chicago, in a carefully prepared article on "Auto-Intoxication in Its Relations to Diseases of the Nervous System," draws the following conclusions: 1. Some of the nervous diseases are the products of auto-intoxication. 2. This autotoxis produces a parenchymatous degeneration of the nervous system, acute or chronic, that may result in the destruction of the structure and function of the nerve cells (Van Gieson and Andriezen). 3. The peculiar arrangement of the lymph channels in the nervous system makes auto-intoxication of the brain possible by the blocking of these channels. 4. The principal factor in this autotoxis is a disordered gastro-intestinal tract. 5. Intestinal dyspepsia and coprostasis are ordinary conditions producing gastro-intestinal intoxication. 6. The diagnosis is to be made (a) by a regional examination, (b) by examination of the gastric contents and (c) by examination of the urine. 7. The urines will show increased amounts of indican, diminished total sulphates, and an increase in the amount of ethereal or conjugate sulphates. 8. There will also be found usually in consequence of this autotoxis a diminished hemoglobin record, and a diminished number of red blood corpuscles. 9. The treatment should consist of lavage, enteroclysis, gastric and intestinal antiseptics, laxatives and hemotinics.

There is one factor in the elimination of these toxins which may not be so thoroughly applicable to diseases of the nervous system, but it certainly is to a large number of other diseases, and that is sweating. This mode of treatment by elimination of toxins through glands of the system is based not only on scientific data, but on the principal of sound common sense. A modification of the diet, a radical change in environment, where the latter is supposed to intensify the materies morbi, a close attention to the secretory and excretory functions of the body and, above all, a searching investigation into the particular requirements of the individual patient; these are methods which carry weight with the practical physician and are applicable to every form of disease. It is this wide applicability which appeals to the general practitioner. When we know that the sweat of a pneumonic patient is poisonous, that of phthisis well-nigh fatal when injected into animal tissue, a lesson is taught that has hitherto been practiced in pneumonia at least from an empirical standpoint. The same

statement may be made concerning epilepsy, for recent experimental observations have proved that the fits in cases of idiopathic epilepsy are preceded and accompanied by greatly increased toxicity of the blood, urine and gastric juice, and intestinal antisepsis, diuretics and the free use of purgatives have been advocated in conjunction with hot baths as among the principal therapeutic remedies in the treatment. It has been found (Carbitto) that the sweat of epileptics has a correspondingly increased toxicity about the time of the attacks. He obtained the sweat for his experiments by placing the patients in a hot air bath and the results that followed suggested to him the use of this as a therapeutic agent in epilepsy, with a view to elimination of the toxins through the skin. He has given the treatment an extensive trial, and has found it an excellent means of curtailing and even preventing attacks whenever the prodromal symptoms manifest themselves.

The treatment must be aided by other measures, such as those enumerated above for the prevention of auto-intoxication.

What conclusions then are we to deduce from these facts? 1. That the sweat of phthisical patients undoubtedly contains tuberculin in notable quantity. 2. That the more such poisonous material is excreted from the system the less hampered is the latter in performing its functions. 3. If this is true, then our treatment of the night sweats of phthisis is based on false premises and we should aid nature by every means in our power to eliminate these toxins by increasing the sweating process, instead of checking it, by the use of such powerful remedies as atropine, agaracin, etc. 4. While this exhausting, conservative process is going on we should support the system by extra supplies of food, stimulants and other remedial measures. After considering these facts carefully the question arises what amount of tuberculin must be generated in the phthisical patient to render the sudoriparous glands susceptible to its influence, and would the sweating process in the early stages be as decided a therapeutic measure in hastening the elimination of the toxins as when mixed infection has taken place.

The field of research presented in a consideration of the entire subject of auto-intoxication is well worthy of the careful study of the investigating student. J. J. M.

1. Jour. Amer. Med. Ass'n.
2. The Lancet.
3. Riv. Sper. di Freinatria.

CHRONIC NEPHRITIS.

Senator in a late issue of the Berlin Klin Noch. includes among the causative factors of this disease a faulty condition of the blood, which eventually ends in destruction of the renal parenchyma with formation of connective tissue. The kidneys more than any other organs suffer from changes in the circulation, and especially from changes in the blood itself. The vessels of the Malpighian tuft and the capsule are particularly exposed to the action of any poison in the blood. The epithelium of the renal tubes is supplied by the same blood as the tuft, only in a more concentrated form.

Semmola thought that the changed condition of the blood lay in an alteration of the blood albumen and that this latter was due to a disturbed function of the skin, but it is not proved that the change in the albumen is primary. The starting itself of the process and the share of the individual tissues in the disease vary according to the causative irritant, and the duration

and intensity of its action. If it is slight and fleeting the parenchyma is affected, but with a severe irritant all the tissues may be affected, even if not in equal degree.

It is difficult to explain why it is that when the cause has ceased to act the disease still proceeds, as in chronic following upon acute nephritis. Not only can no microbes or toxins be founds in the urine, but the urine itself possesses a diminished urotoxic co-efficient. In some cases of acute nephritis changes are present at an early stage in the interstitial tissue. It seems to be very difficult to establish from a clinical point of view the exact extent of the inflammatory changes, for so intimately co-related and dependent do the delicate tissues of the kidneys appear to be that inflammation, particularly when caused by toxic products, in one portion is rapidly followed by the same process in another part. Senator then summarizes his conclusions: 1. Chronic nephritis is usually due to a faulty state of the blood. 2. It may arise from acute nephritis and depend upon the same cause; it may end in a secondary granular atrophy. 3. There is a primary granular atrophy or chronic interstitial nephritis. The change here may occur primarily in the interstitial tissue. 4. There is a contracting nephritis due to a primary arteriosclerosis. 5. Closely allied to the latter is a contracted kidney due to a deficient blood supply. J. J. M.

BARLOW'S DISEASE WITH FATAL ISSUE.

O. Naegeli (Corr. Bl. f. Schweizer Aertz) gives the history of a rapidly fatal case of Barlow's disease in a child 11 months old, who had been supplied with insufficient and improper food. The child died in three weeks with all the typical symptoms of the malady—blood extravasation under the periosteum of the bones of the leg and elsewhere, fracture of the femur, inanition and anemia. A catarrhal pneumonia ended the child's life. There was no history of syphilis, and nothing to indicate that the malady was rachitic in nature. It is clearly differentiated from other diseases, and is a chronic general affection of young children due to unsatisfactory feeding. It is accompanied by changes in the blood and bones, and is complicated later by a distinct hemorrhagic tendency.

Addison's Disease.—Ebstein (Deut. Med. Woch.) records some cases in which symptoms resembling those of peritonitis appeared toward the close of the disease.

Case 1. A man aged 33, with Addison's disease, had slight signs of consolidation at the apices. Afterward a follicular tonsillitis developed. A little later he was seized with dyspnoea, vomiting and fatal collapse. At the necropsy there was tuberculous disease of the adrenals, erosions of the stomach, follicular enteritis, etc.

Case 2 occurred in a man aged 27. There was no bronzing. He complained of pain in the knee joint. Later he had severe pain in the abdomen, constipation, vomiting and died. At the necropsy there was follicular enteritis, recent tuberculosis of the lymph glands of the abdomen, as well as tuberculous disease of the adrenals. The semilunar ganglia were swollen, soft and colored brown.

Case 3, in a man aged 36, had characteristic bronzing, vomiting supervened with diffuse tenderness of the abdomen, and rigidity of the abdominal muscles. There was constipation. Death occurred in collapse. Here both adrenals were atrophied. There was a chronic septo-meningitis and puckering at the apices of the lungs.

Case 2 was an example of Addison's disease without pigmentation. Death in this disease takes place in various ways, through increasing cardiac weakness with fever and vomiting and severe cerebral symptoms, etc. In the three cases described there were several vomiting, but no fever or diarrhea.

The author discusses the nature of Addison's disease and refers to Muhlmann's views with regard to pyrocatechin, to which this writer attributes the bronzing of the skin and other symptoms. A nervous cause may lie at the bottom of the pseudo-peritonitic symptoms referred to above.

Feeding with supra-renal glands may produce improvement, but observations on this point are too limited to definitely advise their use.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

THE SURGICAL TREATMENT OF GASTRIC HEMORRHAGE, CONSECUTIVE TO SIMPLE ULCERATION.

This subject was the topic for discussion at a late meeting of the Parisian Academy. M. Dieulafoy reported various cases of excessive gastric hemorrhage. One young man of 20 was suddenly seized with violent vomiting of blood. This was repeated and copious, so that it became necessary to inject more than a litre of artificial serum into the veins. This produced a slight amelioration, but it was transient only and the patient succumbed.

On post-mortem examination a large ulcer was found in the cardiac end of the stomach, which extended into and opened the coronary artery.

In review of this case M. Dieulafoy regretted that surgery had not been invoked, the ulcer being superficial and limited could have been easily dealt with. An opportunity soon came to test surgery on one of the cases. His second case was a young man of 22 years. Medical agents having failed, a laparotomy was done, when an ulcer was discovered. This was trimmed and its bleeding vessels closed. Recovery was ultimately complete in this case.

M. Michaux recorded a case of a violent hematamesis in a young woman. Failing with tentative remedies a gastrotomy was performed, the ulcer discovered and treated. Death occurred on the 5th day.

Four other similar cases were reported, all ending fatally.

In the discussion MM. Huyem, Lancereaux, Fournier and Cornil participated.

It was quite generally agreed that the diagnosis was usually quite simple, but the etiology was more obscure. Syphilis was said to be a prolific cause of gastric ulcer in many young people. It was said that many of these cases yielded to medical agents, and that those were very rare which called for such an extreme resource as surgical intervention.

Note.—Gastric hemorrhage of an alarming character like enteric or colic must in the near future come under the domain of surgery. Not long since in gastric stenosis or ulcer we folded our arms and let our often hearty, vigorous patient die under our eyes. Now, barring malignancy, they are generally saved by skillful and timely surgery.

T. H. M.

—Journal des Practicine, Feb. 20, '98.

THE RELATION OF OSTEOMYELITIS OF THE INFERIOR MAXILLARY WITH DENTITION.

The author says that one but rarely observes osteomyelitis in the lower jaw, in a hospital service composed of adults.

With the adult the period of evolution is complete and hence we seldom witness this lesion, except consecutive to dental caries; but in these cases we have a suppurative process superadded. In the child the lesion is dependent on imperfect or tedious eruption of the teeth, a congestion and erosion of the mucous membrane with a penetration of germ infection downward. No doubt in all, independent of the local changes in the tissues, with the ad-

vance of the rising tooth there is a cachexia or predisposition, because we find the lesion in some infants before dentition begins.

It is believed that in various cases infection may begin in a buccal ulceration or tonsillar erosion, or after infection succeeding the extraction of a tooth.

Note.—The lesion briefly described is certainly a very unusual one in this country, and is rarely met with except in strumous, syphilitic or marasmic infants; as a primary affection very rarely indeed. Probably in those with a predisposition to it, in the event of protracted and painful dentition free scarifying of the gums would serve as a most potent prophylactic. In the adult, however, this lesion is with us by no means an uncommon one, involving alternately the upper and lower jaws; in the upper giving rise to empyema in Highmore's antrum, with caries necrosis or perforation. In the lower jaw the spread of suppurative action is limited to a confined area in the alveolar pit, quite generally burrowing through the outer, compact lamina into the soft parts, producing first an abscess and then a sinus.

This constitutes a very important class of lesions for the reason that when recognized early they are always amenable to simple, radical and permanent treatment by surgical measures. T. H. M.

—Jour. des Practiciene, March 1, 1898.

LOCALIZATION OF CEREBRAL TUMORS BY MEANS OF ROENTGEN RAYS.

G. Obici and P. Bollici record three cases in which the position of bullets in the cranial bones was ascertained by means of skiagraphs, and also one in which a sarcoma of the brain was localized in the same way. In the last case the skiagraphs were taken only after death. They showed the tumor in the form of a comparatively dark, fairly well-defined area, and the accuracy of their evidence with regard both to the position and size of the new growth was fully confirmed by subsequent dissection. This successful result led the authors to institute a number of experiments upon the heads of cadavers, with a view to ascertaining more precisely the value of radiography in the localization of various kinds of gross brain lesions. After taking skiagraphs in the natural state they simulated various pathological conditions by introducing tumors into the brain, forming artificial cysts, etc. They then made a second series of skiagraphs in the same positions and compared them with the first. A full account of the results of these experiments the authors reserve for a future communication. They state, however, that they are satisfied that radiography is capable of adding to the uncertain clinical methods hitherto employed a new method of localizing gross cerebral lesions which is more sure because more direct. It can at least aid clinical diagnosis by confirming it or throwing doubt upon it, and should be employed in all cases in which there is reason to suspect the presence of tumors or foreign bodies in the brain, more especially when operative procedure is contemplated. It is to be observed that these conclusions are at variance with those of Jolly in the British Medical Journal of January 23, 1897, p. 235, who was unable to demonstrate tumors in the brain by means of Roentgen photographs.

—Rivisto di Patologia Nervosa e Mentale, October, 1897.

THE RESULTS OF FORCIBLE STRAIGHTENING OF THE SPINE.

Bilhaut gives details of cases showing the increase in height following forcible straightening of the spine in Pott's disease. He finds that in all patients attacked by this malady, adults or children, some changes are produced in the height. In adults it diminishes before old age, even without the occurrence of the hump. In children the growth of the spine is arrested and the height increases only by increase in the lower limbs and head. In the early stages of the disease the height

diminishes. The growth of the posterior arch and the cuneiform flattening of the bodies only aggravate the gibbosity without elongating the vertical dimensions of the thorax. The child regains his powers of growth when the curve is reduced, and along with this comes a correction of the form of the thorax, and an improvement in the vital forces from the better condition under which the thoracic and abdominal viscera act.

—Annales de Chir., et d'Orthoped., January, 1898.

THE RADICAL TREATMENT OF HYDROCELE.

Block describes a new operation for the radical cure of hydrocele of the tunica vaginalis. The old method of injection of iodine, he points out, causes a very painful inflammatory reaction, and in common with the more recent treatment by incision and drainage, necessitates prolonged rest in bed, and does not insure freedom from relapse. The author makes a free incision into the sac, applies a 3 per cent. solution of carbolic acid to the surface of the exposed testicle, and the whole of the inner surface of the tunica vaginalis, and stuffs the cavity with strips of iodoform gauze. After removal of the gauze on the third or fourth day the wound in the skin is closed by catgut sutures. Of 18 cases treated by this method, the patients having been seen after intervals between eight months and five years from the date of operation, in one only was a relapse noted. This was a case of very large hydrocele in a man aged 64 years.

—Rev. de Chir., February 2, 1898.

Correspondence.

CARE FOR THE SKIN.

The skin is one of four organs by which the effete matter of the body is eliminated, and hence needs great care. The first and most important precaution is to keep it clean. This may be done by frequent bathing without soap or an occasional bath with soap. The former is the better plan, for that in no way injures the skin. When our grandmothers were young ladies they used meal instead of soap, which always injures the skin by dissolving a portion of the cuticle and extracting some of the oil from the skin. The very best toilet soap will have this effect, and in the course of time will darken and roughen the skin. The Turkish bath is to the skin the same as a dose of salts to the bowels; it may be good for a sick man, but is injurious to one in good health. Two or three baths a week with clean water, without soap and without too much rough rubbing is doubtless the best, especially for those exposed but little to smoke and dust.

The next means by which the skin may be kept clean is in the choice of underwear. Flannel should never be worn next to the skin, not even of the finest lamb's wool. Try flannel underwear next to the skin several days or a week without bathing and at the end of the time the flannel will be surprisingly clean, but the skin will feel greasy to the hand, and will lack much of being clean, and will require soap to cleanse it. In the same way try cotten or linen underwear one week and at the end of the time the skin will feel fresh to the hand, will be easily washed without soap, but the underwear will not be clean. In the former case the perspiration adheres to the skin, in the latter it adheres to the cotton underwear. To make an easy test of this try a flannel, a linen and a cotton towel on your face, and you will find the linen the best, the cotton next, and the flannel a failure.

Underwear should be loose. All tight-fitting or knit goods should be avoided, for the skin needs air, and loose clothing keeps a circulation of it next to the skin by every movement of the body, while knit goods prevent it. To test this try persons whose skin is sensitive, not those whose skin can stand it. Loose cotton clothing next to the skin is comfortable, but if knit or tight-fitting, after one or two weeks wear, even with suitable changes and bathings, produces an itching; loose flannel produces the itching a little more than this, and tight-fitting flannel torments one worse than the winter itch. These facts I have verified by a number of experiments. The itching I judge to be caused by the lodging of the effete exudations on the surface of the skin. I have cured a number of people of what they and their doctors called winter itch by a prescription in accordance with the above. I have no doubt but that babies are often tormented and made sick by the use of flannel next to their skin. With cotton or linen loose underwear and the use of but little soap the skin will keep fresh and healthy, and the person will be but little liable to take cold.

—E. H. Randle, Bzhalia, Miss.

Current Medical Literature.

SPHINCTERIC HYSTEROTOMY.

Defontaine describes an operation for free division of the uterine cervix intended not merely as a preliminary measure in removal of an intrauterine tumor, or to facilitate exploration of the uterine cavity, but for the purpose of abolishing the functions of the sphincter, and consequently of modifying the physiological and pathological conditions of the uterus. Divisions of the sphincter, it is held, is more effectual than amputation of the cervix in causing involution of the uterus, and consequently of ameliorating certain forms of metritis and of uterine deviation. Sphincteric hysterectomy, the author states, is indicated in cases in which it is necessary (a) to assure evacuation of the contents of the uterine cavity, (b) to facilitate involution of the uterus, and (c) to prevent the upward extension of any infective process towards the oviducts. It is regarded as a measure of radical treatment in cases of metritis and of affections of the uterus complicated by septic inflammation, particularly uterine flexions and dysmenorrhea of uterine origin, and also advanced retraction of the cervix. It acts by allowing complete evacuation of the uterine cavity, and by facilitating involution of the diseased organ. The operation, which is considered as quite a harmless one, has had good results after the failure of dilatation of the sphincter and curetting. It should be practised only in cases in which the expectation of conception no longer exists, or when the gravity of the affection leads to a disregard of inconvenient consequences in this respect. It is stated, however, that an autoplastic operation may in certain cases reestablish the uterine sphincter and favor the possibility of pregnancy.

—Archiv. Prov. de Chir., No. 2, 1898.

HEMATOMA VULVAE IN CHILDBED.

Wettergren reports that a woman aged 42 was easily delivered of her ninth child shortly after the membranes had been ruptured. The placenta came away spontaneously. The patient went to sleep, and awoke with a feeling of tenseness in the perineum. Three hours later Wettergren discovered a hematoma as large as a fetal head in the left labium and behind the vagina on the left. Three weeks later it burst through the inner side of the left labium. Then it was emptied and the tampon applied. Two weeks later the patient was quite well. A painless resistant mass could be felt for a long time toward the left side of the pelvic wall. There were no varicose veins in the neighborhood of the genitals during pregnancy and labor, and no history of hemorrhagic diathesis.

—Hygeia, Stockholm, vol. lviii, Pt. II, p. 225, 1896-7.

GONORRHEA IN MARRIED WOMEN.

Van Schaick draws attention to the frequency of gonorrhea in married women. The author examined 65 cases of married women complaining of leucorrhea and found gonococci in 17 of them, or 26 per cent. The examination was made by gently scraping the vaginal rugae, the posterior cul-de-sac, and the labial folds with a curette, previously sterilized

by heat; the preparations obtained were stained with methylene blue. Each case was examined for gonococci three times, and in several it was only at the second or third examination they were found.

—New York Med. Journ.

VAGINISMUS.

Vedeler believes that Rode and others have confounded vaginismus with dyspareunia. The former is always of hysterical origin, and Vedeler declares that it often disappears spontaneously without treatment. The result of various operations for vaginismus is misinterpreted by many authorities. It is the hysteria that is cured by surgical interference, and with it the principal symptom in these cases—namely hyperesthesia.

—Monats. f. Geburts. u. Gynak., November, 1897.

CONSERVATIVE OPERATIONS ON THE UTERINE APPENDAGES.

J. Coplin Stinson recommends that in operations upon ovarian cysts and cystic ovaries any portion of the ovarian tissue which appears normal, even though small, should be retained. Resection and plastic operations should be practiced in women when pregnancy is liable to occur and delivery at term can be conducted with safety. The writer emphasizes his views by the record of two cases of adherent and retroverted uterus with enlarged, prolapsed and cystic ovaries, in which he excised the cysts from the glands and sutured their cut edges with fine silk. In each case the result was satisfactory; in the first, a woman 35 years of age, there was disappearance of all pelvic symptoms, and in the second the operation was followed by regular menstruation without pain or other morbid symptom.

—Occidental Med. Times, October, 1897.

EUCASIN.

Hugo Weiss, of v Schrotter's clinic publishes an investigation of the utility of this food, based upon the observation of 79 cases in which it was employed. Eucasin is essentially casein which has been treated with ammonia so as to render it readily soluble. The substance as at first sold had an unmistakable flavor of rotten cheese, and was consequently extremely unpalatable; but this difficulty has now been overcome, and it is said to be readily taken, particularly in the form of cakes, thick soups and chocolate. Its principal advantages are three in number. First, it contains a very large percentage of proteid—95.65 as against 20.63 in beef. Secondly, the proteid is in an extremely digestible form, and one giving rise to very little fermentative change in the alimentary canal; in this rspect eucasin is to be preferred to meat extracts, which tend after a while to produce severe indigestion. Lastly, it is by far cheaper than all similar preparations. The author found that healthy people fed upon eucasin showed within three or four weeks a notable increase in weight without any digestive disturbances. Forty of his patients were suffering from tuberculosis of the lungs or larynx, and these put on flesh in a remarkable manner on a daily diet consisting of three or four tablespoonfuls of eucasin, two to four eggs, a pint and a half of milk and some fat; the two most marked cases gained respectively 15 and 10 pounds in two months and six weeks. Weiss considers eucasin by far the best food in chronic phthisis where there is loss of appetite, and he has also found it valuable in acute affections of the apices. In gastric disorders it is particularly indicated owing to its small bulk and ready absorbability; the author has used it in gastric ulcer, and in atony of the stomach and hyperemesis gravidarum with gratifying results. In chronic intestinal catarrh, with constipation, particularly in fat anemic women with the uric acid diathesis, it is also most useful, and Weiss has also proved its value in eight cases of anemia and chlorosis. In leukemia he states that it diminishes the output of uric acid. The results obtained in diabetes, rheumatism, malignant disease and nephritis are too few as yet to be conclusive.

—Wien. klin. Woch., Dec. 30, 1897.

WIDAL'S REACTION IN TYPHOID FEVER.

Tschistovitch discusses the significance of Widal's reaction in the course of typhoid fever and its value in prognosis. On the author's recommendation the serum of 80 cases of typhoid was tested by Yepifanoff, and it was found that in the more severe cases the reaction was generally feeble until the later stages of the disease, while in cases where the reaction was well marked the disease ran a favorable course. This caused the author to look on the agglutinating power of the serum as a useful quality, and as tending to produce immunity. To throw further light on the subject he tested the serum of a number of cold-blooded and warm-blooded animals who were injected with agar and bouillon cultures of typhoid bacilli. Perches, frogs and tritons were used to represent the one class and rabbits and guinea-pigs the other. The cold-blooded animals develcped but little of the agglutinating power of the serum, and this was only about a month after infection, while the rabbits and guinea pigs showed the reaction markedly, and as early as the second and third day. In the warm-blooded animals the leucocytes were counted, and it was found that their number diminished for the first two or three days, and then again increased slowly until they reached the normal, or sometimes even increased above the normal. The reaction in the serum was not developed until the leucocytes sank to the lowest number, and were commencing to increase again. As a result of these experiments the author is inclined to regard this power of agglutination in the serum as a sign of immunity. It is not developed in cold-blooded animals, as the temperature of their blood is unfavorable to the growth of typhoid bacilli, while phagocytosis in them is very active, as was seen in one of the tritons, whose leucocytes were full of the bacilli. The presence of Widal's reaction is, however, not of much value in prognosis, as the latter in typhoid fever depends on many collateral causes, such as the state of the heart, of the intestines, of the central nervous system, etc.

—Bolnitchnaya Gazeta Botkina, No. 51, 1897.

HEMORRHAGES IN NEURASTHENIA.

Ausset draws attention to the fact that hemorrhages may occur as part of the symptomatology of neurasthenia. Taking hematemesis as a type of this class of hemorrhage, if one examines the blood it is seen to be more watery than ordinary blood, the hemoglobin hardly reaches a fifteenth of the normal figure, and the red corpuscles are much reduced in number. If the blood is allowed to stand it separates into three layers; at the bottom a thick, grayish layer, then a reddish, very thin stratum, and finally a liquid layer redder than the middle one. Microscopic examination showed the bottom layer to consist chiefly of pavement epithelium cells, the middle of red corpuscles almost devoid of color, and the upper layer of dissolved hemoglobin. There are generally well-marked vasomotor disturbances in other parts of the body. The hemorrhage as a rule only occurs once, and the patients are able to go to work in a very short period. The author believes these hemorrhages to be due to a vasomotor paralysis, causing rupture of the capillaries situated near the glandular epithelium. Recurrence may occur, but usually at a long interval. The prognosis is good.

—Rev. de Med., No. 9, 1897.

CARDIAC BRUITS OF NERVOUS ORIGIN.

Hoeflmayer records the occurrence of cardiac bruits in neurasthenia and hysteria. He found a systolic murmur twice, and a diastolic murmur once in 334 neurasthenic or hysterical patients. He suggests that in these conditions the centre for innervation of the cardiac muscle is weakened by venous congestion and increased acidity of the blood, which, by stimulating the centre excessively, soon exhaust it, so that the cardiac muscle contracts imperfectly.

This explanation would be as applicable to the diastolic as to the systolic bruit, for imperfect closure of the semilunar valves may be produced by feeble contraction of the muscles which assist diastole.

—Munch. med. Woch., iv, 1897.

ADONIS VERNALIS IN EPILEPSY.

Tekutiew recorded the case of a boy aged 10 years, who had suffered from severe epilepsy for two years. The fits occurred 15 to 20 times a day, and there was commencing mental degeneration. A mixture of infusion of adonis vernalis with some codeine and sodium bromide was given, and the dose of adonis vernalis subsequently increased. The result was most successful, the attacks of epilepsy gradually diminished, and before the patient left the hospital had ceased altogether. The treatment by adonis vernalis was strongly recommended by Bechterew, who combined it with bromides, and found that some cases of epilepsy seemed to be permanently cured by it.

—Neurol. Centralbl., Feb., 1898.

SCARIFICATION AS A METHOD OF TREATMENT IN ECZEMA AND PSORIASIS.

At a recent meeting of the Societe de Therapeutique L. Jacquet claimed to have been the first to employ systematically the scarification method of treatment in eczema and psoriasis. He begins by carefully cleansing the affected surfaces by the constant application for a longer or shorter period of time of cold potato poultices. These are often renewed, and are covered with elastic tissue, no antiseptic being added. When the surface has been thoroughly cleansed he scarifies with a sharp point in parallel lines 1 to 2 mm. apart, down to the superficial layer of the derma. The blood is allowed to flow freely, and bleeding is even kept up by the application of tepid boiled water. The surface is then covered with a few folds of tarlatan steeped in the boiled water until potato poultices can again be applied. These are kept on till the next sitting, which as a rule takes place three or four days later, when every trace of the scarification has disappeared. Carried out in this manner the scarifications are well borne, even by children. The invariable result of each sitting is, according to Jacquet, that a few minutes after the operation there is increase of redness, with slight tension and heat; these phenomena last one, or at most two days, after which redness, swelling, heat, smarting and itching are distinctly less than before the scarification. By this method Jacquet says he has cured 11 cases of eczema of different kinds, all of which had proved refractory to other recognized modes of treatment. Among them were three cases of lichenoid eczema (of the dorsum of the feet, of the hands and of the forearms); one old bilateral eczema of the pre-auricular region, three of the face in adults and four of the face in children. Six to seven sittings, according to the nature of the case, were required, and Jacquet states as a general rule that the resistance to the treatment increases in a regular ascent from acute eczematization to lichenoid eczema. In psoriasis the method is applicable only when the discs are isolated and few in number. It is indicated particularly in lesions of the hand and face, and, in the case of women, of the chest and upper part of the back. Its utility though limited is real; Jacquet says that by means of it he has completely cured two patients, one with psoriasis of the back of the hand in two months, the other, a woman who on account of the disease could not wear a low dress, in one month. In both these cases carefully applied treatment of other kinds had failed.

—Sem. Med., March 2.

EXPERIMENTAL TYPHOID FEVER IN ANIMALS.

E. Fraenkel and Simmonds, as the result of intraperitoneal injections of the bacillus typhosus in rabbits and mice, succeeded in producing a disease marked by hypertrophy of the spleen, mesenteric glands and

Peyer's patches. In this case, however, it was possible that the symptoms were caused not by the growth and multiplication of the bacilli, but by toxic substances in the organisms originally injected. The experiments of P. Remlinger have, however, removed any doubts that may have existed as to the possibility of communicating enteric fever to animals. His method of procedure was to feed rabbits or rats upon cabbage or lettuce leaves soaked in water containing a culture of bacillus typhosus. The feeding was not in any case prolonged beyond ten days, and was stopped at the first appearance of symptoms of disease. Unless the diet was ample and given continuously it was found that no effect was produced. Of eight rabbits experimented upon four were unaffected, although the bacillus typhosus was found in the feces during the whole period of feeding. Their blood did not give Widal's reaction. The fifth rabbit suffered from febrile attack of 11 days' duration, but recoverd. Here again no Widal reaction could be obtained. The three remaining rabbits suffered from what may be regarded as a typical attack of enteric fever, rise of temperature, malaise, and diarrhea being prominent symptoms. The blood in all three cases was shown to have an agglutinating action on cultures of the Eberth-Gaffky bacillus. Post-mortem examination showed congestion of the small intestine, proliferation and ulceration of Peyer's patches, with enlargement of spleen and mesenteric glands. Cultures of the typhoid bacillus were made from various organs of the body. The same method of feeding gave similar results with white rats, and in one case a pure culture of the typhoid bacillus was obtained from the blood of the heart. The proof that the Eberth-Gaffky bacillus is the specific cause of enteric fever is thus complete.
—Ann. de l'Inst. Pasteur, No. 11, November 25, 1897.

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SYSTEMATIC HYPERTROPHIC CIRRHOSIS OF THE PERITONEUM.

Du Pacquier describes a case of peculiar hypertrophic cirrhosis of the peritoneum, which he does not regard as ordinary chronic peritonitis. The change was limited to the peritoneum, which became greatly thickened, and by its contraction brought about atrophy of the several abdominal organs. The patient was a thin man, aged 48, who for five months had suffered from ascites, followed 15 days later by edema of the legs; there were dilated veins over the abdominal wall, but no jaundice or hematemesis. The urine was scanty, but contained no albumen or sugar. Tuberculous peritonitis was the probable diagnosis. Paracentesis abdominis was performed and a hard mass of intestines being felt. The condition was then regarded as one of chronic peritonitis, the nature of the cause being left open. The patient gradually sank and died in urgent dyspnea. At the necropsy both layers of the peritoneum were universally thickened, especially in the flanks where it was as much as three to four millimetres thick. There was a clear ascitic effusion, but no adhesions between the parietal and visceral layers of the peritoneum. The intestines were firmly united together, and could not be separated without tearing their walls. The small intestines were surrounded by the colon, and the whole mass was pigmented and bound down to the spine. No trace of the great omentum could be found. The viscera were firmly compressed and so trophied as to be isolated in the abdominal cavity, and to have lost their normal relations. Microscopically they were healthy. The lumen of the colon was reduced to 1.5-2 cm., the mucous and submucous coats were normal, the muscular coat hypertrophied, and the serous coat thickened and composed of parallel layers of fibrous tissue with small foci of small cells showing recent inflammation. The stomach, reduced to half its size, showed the same changes. Glisson's capsule was three times its normal

thickness, the liver cells were loaded with pigment, and there was great congestion. The kidneys were atrophied, but otherwise healthy. There was no glandular enlargement, no tubercle in the lungs, and no history or evidence of syphilis, alcoholism or malaria.

—Archives Generales de Medecine, December, 1897.

GENERAL AND LOCAL ANESTHESIA IN LARYNGOLOGY AND RHINOLOGY.

BY JOSEPH S. GIBB, M. D.

General anesthesia in intra-nasal operations is but a sorry substitute for local anesthesia, and should be employed only when the necessities of the case urgently demand it.

We are obliged at times to meet the wishes and desires of our patients, some of whom prefer general anesthesia because the operation can be done without their consciousness. At the same time it seems to me a folly to undertake such operations merely to please the patient unless we are reasonably sure we understand beforehand every necessity of the case.

The larger number of intra-nasal operations being best undertaken under local anesthesia, we must now decide which of the few local anesthetics will serve our purposes best, and the manner of its use.

Cocain has held undisputed sway as a local anesthetic for about 15 years and, in the main, leaves little to be desired. Those who have used it freely, however, have now and then observed effects which have given rise to anxiety, and a few fatal cases have been reported from its use.

It has always been a matter of doubt to me in these cases of cocain poisoning as to the part played by the shock of the operation. A nervous woman cuts her finger and faints at the sight of blood; this same woman should certainly be expected to faint during an operation on her septum. I believe that some of the cases which have been regarded as cocain poisoning are of this nature.

A very few can not be explained in this manner and we are forced to admit that in some subjects an idiosyncrasy exists to the drug.

More recently eucain has been extolled as the equal of cocain in anesthetic power and, it is asserted, possesses no such tendency as the latter drug to produce intoxication.

Our experience with this new anesthetic is necessarily too limited to assert positively as to the latter claim. There is no doubt in the writer's mind as to the validity of the former.

In an article published in the Philadelphia Polyclinic, January 23, 1897, the author gave an experience of six months' use of this drug in the clinics of the Episcopal and Polyclinic Hospitals. It was found to have equal anesthetic power with cocain, both as to intensity and duration of anesthesia in the larger number of cases.

Its power to reduce engorged turbinates was also equal to that of cocain. In the pharynx, while it possesses equal anesthetic power to cocain, it lacks those unpleasant suffocative, choking sensations which the latter drug at times induces. It is, therefore, much pleasanter in its effects in this locality. In no case were any symptoms approaching intoxication induced.

These results have been confirmed by a riper experience. Eucain is now used at my clinics in all operations in the nares, naso-pharynx and pharynx, except in those few instances in which cocain seems to have a better effect.

Its use in the larynx has been abandoned because cocain has equal anesthetic power and is slightly less irritating and hence less apt to produce annoying and troublesome spasms.

The pleasantest manner of obtaining anesthesia in the nasal chambers is as follows: First spray both chambers with a 2 per cent. solution of whichever anesthetic we elect, to obtain tolerance for the harsher methods to follow. After waiting for one minute saturate a small pledget of cotton with a 4 to 10 per cent. solution of the drug and allow it to lie at the site of operation for from five to eight minutes.

Antipyrin in 5 per cent. solution has been found to intensify and prolong the anesthetic effect of cocain or eucain; therefore if the projected operation promises to be a tedious one after removal of the tampon of cotton a spray of antipyrin (5 per cent.) may be passed through the nasal chambers.

Antipyrin has also a decided hemostatic effect and in operations upon the septum or the posterior turbinates, parts that are quite vascular, this drug will prove to be an agent of decided advantage. It is, however, much too irritating for use in the nasal chamber, unless preceded by the free use of eucain or cocain.

With these two reliable local anesthetics the rhinologist is well provided, and intra-nasal surgery is robbed of much of its terrors.

Naso-pharynx.—The most frequent operative procedure the surgeon is called upon to undertake in the naso-pharynx is that for the removal of adenoid vegetations from the vault.

There is great difference of opinion existing among surgeons regarding anesthesia in these cases.

Some, viewing the operation as trivial, eschew the use of anesthesia in any form, others advise a local, and still others always employ a general anesthetic.

Probably much of this confusion and difference of opinion arises from an improper selection or arrangement of the class of cases.

In deciding upon the use of an anesthetic we should be influenced by the particular form of operation we are to employ and also by the age of the patient.

In adults and children of riper years, who may be properly controlled, these growths are best removed by means of the postnasal forceps.

These instruments should never be employed under general anesthesia, save by those thoroughly familiar with work of this nature and then guided by a finger insinuated back of the soft palate; this latter precaution is only possible to those having small digits, and hence the application of this method is limited.

The use of the forceps without the aid of the mirror in a space hidden from view has always seemed an unsurgical proceeding, and especially since we have the means at our command to bring the parts thoroughly under the eye and to follow every step of the operation.

In those cases, therefore, of hypertrophy of the pharygeal tonsil in adults or older children, in which it seems preferable to employ the postnasal forceps, the operation should be performed under the local anesthetic influence of eucain or cocain and by the aid of the rhinoscopic mirror. There are many adults and older children either too nervous or with pharynges ill adapted for rhinoscopic work; these then will come under the same rules as those to be presently adverted to in the case of children.

By far the larger number of cases of adenoids occur in young children. The most popular methods employed for their removal are the curette, the fingernail, or both combined.

Pharyngeal Operations.—Nearly all the operative measures the laryngologist is called upon to perform in the pharynx can be accomplished under local anesthesia.

Eucain is to be recommended in this locality. It causes less discomfort to the patient and it is also probably less likely to give rise to unpleasant general symptoms.

—Journal of American Med. Ass'n, March 6, '98.

OFFICE DISINFECTION.

Much has been written concerning the precautionary measures to be employed by sanitary boards and health officers in subjecting all public places to frequent and thorough disinfection. Many of the energies of our medical profession have been well spent in this direction, and the greater regard now paid for cleanliness in our railroad stations, street cars, theatres, jails and other public places much frequented, is the result.

Perhaps it may be well to add a suggestion which might be of interest to the large class of specialists whose principal work is confined to office practice.

The reception room of a physician is quite a cosmopolitan place, particularly in the metropolis. Here extremes often meet—aristocracy and poverty, cleanliness and filth, the delicate odor of violets and the strong, penetrating smell of garlic.

Seated side by side in the office of the otologist and laryngologist may be found the ozonic nose, the putrid, suppurative otitis media, the diphtheritic, the consumptive with laryngeal complications and incessant cough and expectoration, the patient with tonsilitis and his young neighbor, whose whooping cough determines the diagnosis even before his entrance to the consulting room.

It might be interesting to follow up this line of thought into its possible consequences. Suffice it to say, however, that many of our ablest colleagues look upon the contamination and infection possible in their reception and consulting rooms with utter indifference.

Only last week I reduced a hypertrophied turbinate with the galvanocautery in an otherwise thoroughly healthy girl. During the same day I had previously treated three or four cases of tonsilitis and one case of diphtheria. When my young patient of the galvano-cautery presented herself for further treatment 24 hours later she had developed a typical, bilateral tonsilitis, the first involvement of that character which she had ever had. Is it not reasonable to suppose that the operative interference in the nose diminished the natural resistance of the mucous membrane of the naso-pharynx and pharynx, and that the exposure to the contagious influence of tonsilitis and diphtheria found a fertile field?

With the establishment of antiseptics the physician has been taught to appreciate the value of careful disinfection and sterilization of his instruments, appliances and dressings. Of what value is the thoroughly sterilized tongue depressor or nasal speculum on a susceptible mucous membrane when the air of the consulting room is laden with aerobic micro-organisms galore?

Perhaps the fumigation of our offices seems an unnecessary precautionary measure, but the actual experiment of bacteriological examination of the waiting and consulting rooms has been undertaken with convincing results. Of this more anon.

Thus far the methods of fumigation have been accompanied by so many unpleasant features and details that frequent repetitions would be inconvenient. With the introduction of Formaldehyde, however, a clean and efficient fumigation has been made possible.

The small Formaline lamp, recently introduced by Chering and Glatz, with the accompanying formalin pastilles is the method of deodorizing and disinfecting which I now employ every two or three days in my office. Formalin is one of the most energetic disinfectants known, and a small quantity also suffices to completely destroy the foul odors so prevalent in the office.

In conclusion I would emphasize that disinfection of the atmosphere is of almost equal importance with sterilization of our instruments.

TREATMENT OF WHOOPING BY PHENOCOLL.

M. Uargus, of Barcelona, first tried phenocoll in 1895, and derived from it very good results. I have used it, too, in seven children who were attacked with whooping cough during measles. In all there was marked and rapid improvement. The remedy diminished the frequency of the attacks and their intensity; the nocturnal attacks especially were less frequent, and the total duration of the disease notably lessened. The dose administered was from one to two grammes daily. M. Fabistocherski has had like success in 40 cases at the Hospital "St. Olga." Without being a specific remedy, phenocoll offers real advantages in whooping cough and should always be resorted to when other remedies, particularly morphine, are contraindicated, especially in young children, in whom the disease is often dangerous. There are no inconveniences attending its use.

—Med. Rev. of Reviews, Feb., '98.

THIOL IN THE TREATMENT OF THE UPPER AIR PASSAGES.

A very large percentage of the diseases of the upper air passages are incited by adenoids, and while this condition is perhaps often secondary to nasal obstruction, it is, nevertheless, manifest that this inflammatory condition will not subside even when the nasal obstruction is removed. Therefore the removal of post-nasal growths is imperative, not only growths but adenoid hypertrophies should be just as surely and as thoroughly removed, and, say what we will, this operation requires a thorough knowledge of the anatomical relation, and skill in the use of the instruments designed for the removal of this hypertrophic tissue, growths, etc. Hypertrophied tonsils should be removed by the amygdalotome, and to be successful must be thorough, so that no fragments protrude beyond the pillars of the soft palate.

Of the diseases affecting this region due to a constitutional condition might be mentioned, first, atrophic rhinitis. A very large percentage of the patients afflicted with this disease succumb to tuberculosis sooner or later, and of those who do not their prolongation of life may be attributed to favorable hygienic and sanitary environments; also to faithful and careful cleansing of the parts and keeping the physiological action of the nose in as perfect condition as possible. The best method of doing this is the daily use of the syringe with pure hot water. The syringe manufactured by Tiemann & Co., with a short nasal tip for use in the anteriar nares, with a shifting shield which has a post-nasal tip also, is one that can be relied upon for thorough cleansing of the nasal lumen and post-nasal space. Not only is this plan of treatment beneficial in removing putrid secretion, but the warmth, irrigation and massage have an influence in equalizing the circulation and restoring the lost nerve power. As a means of giving rest to these overwrought, worn, and exhausted parts, after such cleansing it is desirable to find some remedy that will physiologically put the parts in splints. This I believe I have found in the following prescription:

R—Powdered thiol.....gr. x
Menthol .....gr. v
Liquid blancolin (Paraffin liq.) . .oz. i
M. Sig.—Apply three or four times a day by means of an oil atomizer.

This proves still greater benefit if it can be used as hot as possible consistent with the comfort of the patient.

I was led to make a trial of of thiol because of the good results I had obtained in some forms of skin diseases I had treated with this remedy, and I had also found it beneficial as an air-tight dressing in fresh wounds. The foregoing prescription I am using with very satisfactory results after operations within the nasal lumen.

—Dr. H. L. Armstrong in New York Medical Journal, April 24, 1897.

HEMATOMA OF THE VULVA.

Binder (Centralblatt fur Gynakologie, No. 34, 1897) reports the following interesting case of hematoma in a non-pregnant woman, not due to traumatism: An alcoholic subject, aged 39 years, on lifting a tub of water from a chair to the floor was suddenly seized with a sharp pain in the perineum, accompanied by a desire to have a movement of the bowels. In spite of violent straining she could pass nothing, and only increased the pain. On examination the right labium was found to be enlarged and tender to the touch. Between the anus and the right tuber ischii was a tense tumor the size of an egg, quite sensitive. An ice bag was applied to the external genitals. Three hours later the right labium had swollen to the size of the fist, and the vagina was almost filled by a bluish-red tumor springing from the right side, while the enlargement in the anal region had assumed a quadrilateral shape and was connected with the labial swelling. The symptoms were less severe than at first. The blood effusion was entirely absorbed in the course of two weeks.

The writer attributes the accident to the effect of a sudden muscular effort upon vessel walls weakened by excessive indulgence in alcohol.

RENAL TUBERCULOSIS.

In the initial stage of renal tuberculosis the symptoms may be latent. Pain is considered the first and most important manifestation. It may occur as lameness of short duration, sometimes as a feeling of weight in the lumbar region; it may be sharp and intermittent or continuous and lancinating. Hematuria may occur early, and blood may be present in only microscopic quantities. The presence of pus is the most important characteristic of the urine, and it is spontaneous, constant and lasting. The tubercle-bacillus may be discovered, but is not present in about 40 per cent. of cases. Kelly's instruments are of value in determining the diagnosis, and pain and swelling are the most important guides. The most essential point is to distinguish cases requiring surgical treatment from those that are inoperable.

—Journal of the American Medical Association, March 12, 1898, Vol. xxx, No. 11.

NEW INCISION FOR APPENDICITIS.

Visher reaches the appendix by an incision one inch above and parallel to the iliac crest, from the edge of the external oblique to a point just above the anterior superior spine of the ilium. The muscles, which are better developed here, are separated in the direction of their fibres, and the belly opened. The advantages claimed are: the impossibillty of hernia, because of the wound's position; the most dependent point for drainage; and the facility with which the appendix is found. The greatest drawback is the extreme depth of the wound.

—Phil. Poly.

TREATMENT OF CHRONIC OTITIS MEDIA.

The most essential factor in the treatment of chronic otitis media is the establishment of thorough drainage, whether the otitis be catarrhal or suppurative. To this end strips of naphtholated quinolin or nosophen gauze give entire satisfaction. Irrigation is necessary in but a small minority of cases; in general, the use of injections is to be condemned. Operative interference is indicated when the pursuance of palliative treatment for one month is attended with failure, when the perforation is anywhere in the pars tensa or is small, when the discharge is copious, purulent, long-continued and offensive, and when the membrane is thickened. It is indicated, further, when more or less of the pars tensa is lost, together with the handle of the malleus, and the discharge can be seen issuing directly from the attic.

—New York Medical Journal, March 12, 1898, Vol. lxvii, No. 11.

THE SURGICAL TREATMENT OF EXOPHTHALMIC GOITRE.

This was the subject of an interesting discussion at the French Surgical Congress held in Paris in October, 1897. M. Faure, of Paris, has excised the cervical sympathetic in three cases. In the first of these, the superior cervical ganglion, along with five to six cms. of the descending cord, was excised on both sides; after four months the exophthalmos had diminished, the goitre was less in size, the tachycardia and the general health had much improved. In the second, the entire sympathetic was resected on the right side (superior and inferior ganglion included), the superior ganglion and part of the cord only on the left (because of the onset of alarming syncope); this patient improved still more markedly than the first. The third case died on the table after the entire sympathetic cord had been removed on the right side and the dissection on the left side was about to begin. M. Faure nevertheless is of opinion that it is a "good operation," only in future he proposes to use ether instead of chloroform, and to operate on the two sides of the neck at different times.

GONORRHEAISM.

Schuster, physician at the sulphur baths of Aix-la-Chapelle, details some observations drawn from a large experience in the treatment of

gonorrheal affections. It is generally supposed that gonorrheal arthritis, iritis, pericarditis, inflammation of tendon-sheaths, etc., are caused by the entrance of the toxins of the gonococcus into the ciculation, but Schuster emphasizes the possibility of the emigration of the gonococcus itself. Affections of the calcaneum, inferior maxilla, tibia and sterno-clavicular articulation are usually considered syphilitic, particularly if they yield to treatment with mercury and the iodids; but Schuster has effected cures by mercurial treatment in cases of this character that have never had syphilis, and which he believes to be purely gonorrheal. Inunction or the subcutaneous injection of corrosive sublimate in conjunction with hot baths (39 to 40 degrees C.) is favorably spoken of. Schuster had already demonstrated by his own observations at the baths of Aix-la-Chapelle that the temperature in the rectum rises during a bath at 39-40 degrees C. to a like height, and, as the gonococcus is destroyed by such a temperature, he believes in the specific effect of the bath in the treatment of gonorrheal affections. Care is advised in the use of the hot bath in cases of endocarditis. Immobilization and injection of iodoform glycerin are recommended in articular affections. Gleet, when present, must be treated, preferably, by medicated irrigations.

—Journ. de Med. de Paris, January, 1898, p. 46.

SALIVA A REMEDY FOR ACID DYSPEPSIA.

In cases of acid dpspepsia have your patients chew chewing gum or any other harmless substance during the entire period of digestion, swallowing the saliva. During the intervening period the salivary glands should have rest, hence chewing should be suspended.

—Ex.

THE BICYCLE AND GYNECOLOGY.

Faquez lays down rules for the use and disuse of the bicycle, a full memoir on the subject having appeared in the Journal des Connaissances Medicales, August 26, 1897. He maintains that the bicycle is to be recommended in cases where complete normality of the genital tract exists, for the relief of anemia, dyspepsia, neurasthenia, sterility, obesity, deferred appearance of the catamenia in young girls and in menopause troubles. The bicycle is a therapeutic agent in simple uterine congestion, in amenorrhea due to imperfect development of the uterus and ovaries, or to other causes involving simple debility, including nerve shock; in nervous and congestive dysmenorrhea; in simple deviations of the period, such as a supplementary show between the normal catamenia; and in cases of fibroid when all hemorrhage has ceased. The bicycle is allowable in mechanical and membranous dysmenorrhea; in displacements and flexions; in mild and painless cases of chronic metritis after labor and abortion; and in the leucorrhea of anemia. Lastly, the bicycle must be absolutely forbidden in amenorrhea associated with phthisis, cancer, diabetes, organic disease of the heart and albuminuria and organic renal diseases; in metrorrhagia or excessive menstruation; in acute metritis, perimetritis, salpingitis, ovaritis, pelvic abscess, and parametritis; in hematocele and bleeding fibroids; and, lastly, in vulvitis and vaginitis not thoroughly healed.

—La Gynecologie, December 15, 1897.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

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Original

CONVULSIONS IN CHILDREN.

BY C. F. MARKEL, M. D., COLUMBIA, PA.

In selecting this subject I am convinced that while the disease is of a very common occurence there is perhaps no other ailment of such vital importance to the general practitioner as is that of convulsions in children. Our memories are fresh with experiences, of hurried calls, from parents whose excitement knew no bounds, only to reach the bedside of some little sufferer, whose condition, although of the most alarming and dangerous character, bids defiance to immediate interference. Hardly ever do we fail to find the powwowing medium, ensconced in some remote corner of the room, who after exhausting her omnipotent powers at restoration has resorted to the powerful influence of table salt to the patient's lips, crushed raw onions to the soles of the feet and wrists, together with a crock of water beneath the bed, sufficiently large to drown the dreaded demon who holds the fort. The first and most important duty of the physician is to summarily and without ceremony fire the powower. The next to relieve the child of the torture imposed upon it and give nature an opportunity to operate. While this process is goin on it will be well for us to consider the surroundings, conditions and probable causes of our patient's malady. We are told that some of the predisposing causes of convulsions are local irritation. They may also be termed sympathetic, when they are a forerunner of any of the specific fevers. They may be symptomatic, when occurring as ar esult of an injury.

Read before the "Lancaster City and County Medical Society at the March meeting.

When this is the case they usually affect only one-half of the body. However, the real cause of convulsions resolves itself strictly into a chemical and physiological consideration. One of the most important of these is the existence of an unduly excitable nervous system in young children who have inherited this tendency from their parents. It may also be due to a low state of vitality. I might mention as a few of the exciting causes the process of teething, an overloaded stomach, or some form of indigestible food; diarrhoea and worms also find a place as excitants to convulsive paroxysms. Whatever may be the exciting cause which produces convulsions, experience shows us that there always exists a frequent pulse and a very high temperature prior to the attack. The death-rate from this disease, especially in infants, is somewhat alarming, this fact being largely due to our inability to administer the proper remedies, because of the muscular jerkings, and the locked condition of the jaws. Certain it is that we are called upon to treat few diseases that are more formidable or more fatal than convulsions. We are expected and urged upon by parents to do something to save the child's life. We have medicinal agents at our command. We know that chloral, bromide of potash, opium, hyoscyamus, valerian and other anti-spasmodics are indicated. We know that if the patient's stomach is overloaded with indigestible matter that the proper thing to do is to administer a prompt emetic. We know that large doses of calomel or other active cathartics are indicated if the trouble originates from a locked condition of the bowels. And yet, notwithstanding these facts, we are constantly called to cases of infantile convulsions over which these remedies seem to exert but little if any control. Indeed, in a large number of cases we find it impossible to administer any medicine whatever. In such cases it is customary to look to the condition of the skin, bowels, head, etc., by using enemata, warm baths, cold to the head, if indicated, and sometimes if not indicated. This is done in many cases, rather to relieve the great anxiety of the parents than to improve the condition of the patient. But, granting that these remedies and applications do result in good effect upon some, what shall be done with those in which they fail to improve? It is of these latter cases (which are generally of a subacute or chronic form, and which, on account of their duration, exhaust the little patient to such an extent as to prevent its recovery), that claims our attention.

Fortunately we have what may be considered a specific for this condition of affairs. I mention chloroform as a specific. I have used, and know of others who have used this remedy with great satisfaction to themselves and that of the family. The value of this remedy can best be proven by citing a few of many cases which were treated in this manner. In March, 1877, the writer was called to see a child 8 months old who was suffering with violent convulsions. Upon inquiry I found that the family physician had seen the patient earlier in the day, and had given an enema and a warm bath, and directed that 1-12th of a grain of calomel, combined with 1 grain of sugar, be given every half-hour. In addition to this bromide of potash and chloral, with tr. of hyoscyamus and syrup was ordered to be given, providing the clenched teeth would not prevent. But as the convulsions continued, none of the medicine could be given. The patient at this time was bathed in profuse perspiration, pulse so rapid that it could not be counted, and the pupils dilated. In the absence of the family physician, seeing that the child was rapidly becoming exhausted, a half ounce of chloroform was ordered. This he was allowed to slowly inhale, until he became thoroughly relaxed, when in a few moments the convulsions ceased entirely. The pulse now became more regular and full. The breathing was calm and easy, and the child passed into a sweet sleep, which proved a great source of relief to parents and physician. There was no return of convulsions, and the child made a speedy recovery. Another case was that of a boy 9 years old who took

convulsions at midnight. Was called an hour later. The boy had never had any trouble of this kind before, and there seemed to be no assignable cause. The usual remedies and local applications were resorted to, but no impression could be made other than that the bowels moved freely; but spasms continued without abatement. Chloroform was now resorted to, and continued until the patient became thoroughly nauseated; this was followed by copious vomiting. The contents of the boy's stomach had the effect of refreshing the memories of his parents of the fact that the boy had paid a visit to his grandparents the day before, where he had indulged in large quantities of peanuts, popcorn and prize packages. After the stomach was emptied the lad had no more convulsions. Even had I known the contents of that stomach I know of no emetic which would have acted as effectually and promptly as did the chloroform. Allow me to refer to one more case. This was not a child, but a young lady 22 years of age, who was suffering from spasms of a hysterical character. In this instance two physicians were sent for at the same time. I was the first to arrive, and fully a half hour elapsed before Dr. B. arrived, during which time I busied myself with all sorts of remedies at command, together with a host of local applications, with the result that it required the combined efforts of the family and doing herself bodily harm. About the time matters had come to a crisis, myself to prevent the patient from so far as excitement was concerned, Dr. B. arrived, and without even feeling the patient's pulse, drew a small vial out of his vest pocket, applied its contents to a handkerchief, and allowed her to take a half-dozen whiffs, with the result that she opened her eyes, looked around the room and inquired what the trouble was about. The convulsions were at an end, and I need not tell you that Dr. B. has since been the family physician in that home, all because I failed to take my chloroform with me on that occasion. In concluding my paper I wish to say that, while it is my opinion that chloroform is a specific in the treatment of convulsions, it is nevertheless important to exercise care and a certain amount of precaution in its administration, and much depends upon the manufacture and quality of chloroform. My experience has proven that Squibbs' manufacture, although more expensive than others, is always reliable and trustworthy. There are other remedies which have proven advantageous, all of which are familiar to the practitioner, but they are usually of little value, because of the inability to administer them, while chloroform can be given when the convulsions are locking the jaws and distorting the muscles of our little patient, and usually with very happy results.

HYDROLEINE IN MALNUTRITION.

BY EARNEST B. SANGREE, A. M.,M. D., PROFESSOR OF PATHOLOGY AND BACTERIOLOGY IN THE MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY, NASHVILLE, TENN.

The cell is a nucleated mass of protoplasm. Such is the definition usually given, and it is simplicity itself. But though the definition is so simple the structure of the protoplasm is so complex that no chemist has as yet succeeded in analyzing it, and its actions in the organism are so complicated that no physicist or biologist has been able to explain them. Nature, however, has so arranged that under the normal conditions of inherent good vitality and proper environment this complex and complicated piece of mechanism, be it the monad amoeba

or the celluar unit in the highly organized elaborated human body, performs its functions quietly, certainly and, to the organism, unconsciously. In a word, the single healthy cell, wherever it may be, is able to appropriate nourishment with which to feed itself, to grow, to multiply and to perform function. The higher the structure the lower are its powers of resistance. Compare, for instance, the resistance of a baby with that of any of the new-born of the cold-blooded animals. So we find, as one would naturally expect, in an organism as highly elaborated as is the human, that disturbance in one organ or member affects generally the entire body. One may break a leg off a spider or the tail off a water salamander, and the animal will not be particularly disturbed; another leg or tail will replace the old one. But the amputation of a leg or an arm from a man means not only life-long deprivation of that limb, but often also somatic death through shock of the operation alone. The hydra viridis can be turned inside out and still go on living just the same; but in the human simply interfere with the elaboration of his bile, and a well man is not only converted into a sick one, but the moral nature of one who ordinarily manifests the most benignant qualities may for the time being be changed into that of a half demon. Fortunately for us, nature has a disposition and a desire to keep us in health, probably evolution having discovered that in organized beings the vital functions are performed easiest in the lines of least resistance, and this condition is that which we know as health. Since we unfortunately know very little definitely as to how these vital activities are carried on, it is plainly our duty when something clogs the mechanism to remove the obstacle. A headache, for instance, that comes from the auto-infection of an intestine full of fecal matter, is much better treated by a dose of salts than by a headache mixture. And so it seems to me that malnutritions of various kinds are often much better treated by foods than by tonics. The most common and important malnutrition that we have to deal with is that caused by consumption. Here the surplus energy is disappearing under the rapidly-beating heart, the fever and the increased destructive metabolism from the presence of the micro-organisms. At the same time the weakened system is clogged with waste products which it has not vital activity enough to eliminate. We do not know how to kill the germ; fever medicines are almost useless, probably worse than useless. Tonics are often not aken up. What are we to do? To my mind there are two main indications for treatment. Although there is no medicament in our armamentarium that can manufacture vitality in a dying cell, nature can. Therefore give the organism food. Keep the various emunctories in as active a condition as is necessary, and give food, assimilable food without stint. Feed the patient more than enough both for himself and the bacilli; for by every unit of strength he gains his cellular structures become just that much more resistant to the attacks of the micro-organism. The other indication is, make the best environment. Beautiful and conclusive experiments on the lower organisms, which this is not the place to recapitulate, have shown that environment has a wonderful effect on the well-being of organized structures, and if on these lower vitalities it probably has even more on the hughly elaborated sensitive human mechanism. This subject, also, should receive earnest and thorough attention. But, unfortunately, in the majority of cases change of environment is impossible; consumption does not attack only the rich, for the poor working girl, the shop boy, the day laborer's wife with her dependent little children. We must fall back on food. What food is the best? I believe cod liver oil to be par excellence the best food in the great mass of tuberculous cases, as well as in any other instances of marked loss of adipogenetic power. Here again, however, we meet with difficulties. The weakened and irritable digestive organs are often unable to assimilate the oil, and its presence in the internal economy under such

circumstances is the reverse of beneficial; it is hurtful. To give the food is not enough; we must see that it is taken up. This condition exists so commonly in people who are in need of reconstruction that I rarely deem it advisable at first to prescribe the pure oil; for the last four years have usually begun with hydroleine, and in most cases have used other preparations. Hydroleine contains some 7 per cent. of well emulsified oil, and in addition carries with it the digestants necessary to assist those organs whose duty it is to see that the oil is properly prepared and delivered to the absorbents. In each dose there are: Soluble pancreation, 5 grains, soda, 1-3 grain, salicylic acid, 1-4 grain. With this preparation of oil I have been particularly fortunate, having yet to meet with the first person that could not take it and keep it down. It is usually best given after meals, but in a few cases where oily eructations and nausea occurred I have ordered it to be taken before meals with uniformily good result. I particularly recall one case of its undoubted efficacy in tuberculosis.

A German woman of some 40 years of age, thin and nervous, was taken with a persistent cough. She slept in a cold room, lived in a rickety house, worked unceasingly, exposed herself in every possible way. The cought grew worse in spite of medicines given. She became thinner than her wont, and was evidently steadily going down hill. Finally tubercle bacilli were found in her sputum. I then put her on hydroleine; nothing else. Neither habits nor environment could be changed. She was kept continuously on this preparation for three months. Her cough gradually lessened, her fever disappeared, her nutrition improved, and in short she apparently become entirely well. This is now three years ago, and she has since had no trouble that would suggest tuberculosis and enjoys her accustomed health.

Society Reports.

THE NEW YORK ACADEMY OF MEDICINE, SECTION OF ORTHOPEDIC SURGERY.

(Meeting of February 17, 1898).

DR. E. G. JANEWAY, PRESIDENT OF THE ACADEMY, IN THE CHAIR.

Dr. T. H. Myers read a paper on "Non-Tubercular Inflammations of the Spine." The following is an abstract of the paper and discussion:

Dr. Myers said that syphilitic inflammation of the spine was found in all regions of the column, and might involve any of the tissues and any of the vertebral parts, with the exhibition of periostitic, osteitic and other varieties of inflammation. In the cases of two boys, whose histories were related, the cervical and dorsal regions were affected respectively. In the former there was the deformity of wry-neck and in the latter a kyphos. Pain and rigidity were present. There was no history of transmission, but the presence of syphilitic dactylitis and prompt and repeated response to anti-syphilitic medication determined the diagnoses. Both patients were much relieved by mechanical treatment.

Dr. W. R. Townsend said that this form of spine disease was a rare affection. The kyphosis did not differ from that of the spine affected with tuberculosis, and there was generally a history of inherited syphilis.

Dr. R. H. Sayre said that in making a diagnosis in children the presence of multiple arthritis would indicate syphilitic rather than tubercular disease of the spine, especially if the child were under 18 months of age.

Dr. B. Lapowski said that dactylitis syphilitica had no characteristic symptoms, and was therefore valueless in distinguishing between syphilis and tuberculosis. Neither was a response to anti-syphilitic treatment a certain guide since anti-syphilitic medication produced good results in tubercular diseases and of late hypodermic injections of sublimate had been used with good effect in gonorrhoeal rheumatism.

The president said that it was not rare to see a person suffering from both tuberculosis and syphilis. He had also seen cases which were thought to be tubercular, but which yielded to anti-syphilitic treatment.

Dr. Myers said that the relation of congenital syphilis to tuberculosis was not well understood. It was possible that transmission might make the offspring a more than usually favorable soil for tubercular infection. Moreover, there were cases of a mixed infection, a tuberculous subject acquiring syphilis or vice versa.

Rheumatic inflammation of the spine was more certainly recognized. In rheumatoid arthritis, which was by far the most common, other joints were also affected, and there was slowly increasing and poorly defined deformity from inability of the column to withstand the superimposed weight, with a varying degree of pain. Mobility and pain declined together, and the latter ceased when anchylosis was established. The bones exhibited sclerosis with atro-

phy and absorption under pressure. Active medication was required with protection and immobilization. Every effort should be made to secure anchylosis, if it was inevitable, in the best possible position of the spine.

Dr. C. C. Ransom would make a clear distinction between spinal rheumatoid arthritis and rheumatic disease of the spine. The latter affection, when limited to the spine, was comparatively rare, and usually affected the lower dorsal and upper cervical regions, rarely exhibiting cartilaginous and osseous changes, and fibrous anchylosis due to ligamentous changes only in very exceptional patients and in those of advanced years. Rheumatoid arthritis of the spine, on the other hand, exhibited muscular atrophy, deposits about the joints and characteristic deformities of other affected joints. In its treatment the classic remedies used in rheumatism had little if any effect, and, with the exception of iodide of potassium, were apt to do more harm than good. In the treatment of rheumatism of the spine, however, the methods usually employed in rheumatism would be found to give good results. Specific remedies, such as salicylic compounds, iodide of potassium and colchicum, might be used in the active stage, and to relieve distressing symptoms. But to cure the trouble our dependence must be on general tonic and hygienic treatment, including iron, arsenic, the hypohosphites, hydrotherapy, massage, and, when pain or motion had sufficiently subsided, proper forms of active exercise, regularly carried out.

Dr. Townsend could recall but one or two cases in which the diagnosis of rheumatic affection of the spine could be clearly made out. He referred to rheumatic changes in the bones and joints of the spine. Rheumatic pains affecting the spinal muscles were sufficiently common.

Dr. Sayre recalled a case which at first seemed to be tubercular inflammation of the cervical spine. There were pain and limited motion. A support enabled the patient to move without pain. Different diagnoses were made by a number of observers. Syphilis was eliminated. Atrophy and an inelastic condition of the muscles suggested a nervous origin of the trouble. The inflammation progressed, and a few years later the entire spine was rigid. Stiffness of the costo-sternal and costo-vertebral joints interfered with full respiration, and other joints were involved. There had been some relief from gentle massage.

Dr. Myers said that the diagnosis of malignant disease of the spine was readily made in cases in which a malignant growth had already occurred in another part of the body, but if the primary manifestation was in the spine the affection might be overlooked. The growth might infiltrate the bodies, transverse processes, laminae and spines or occur externally on the sides of the vertebrae. Small metastases might occur in the neighborhood, and the spinal nerves were oppressed by invasion of the inter-vertebral foramina. The average duration of life after the onset was eight months. The most constant symptoms were pain and motor paralysis. Kyphosis was found in some cases. Severe pain and the occurrence of sensory paralysis before the appearance of the motor symptoms were considered as rather diagnostic.

Dr. V. P. Gibney said that this affection was very interesting to the general practitioner, and to the specialist, because of the peculiar symptoms and the difficulty of making the diagnosis, which, however, could as a rule be made early. The severity of the symptoms was so great and the pain in certain regions was so acute and persistent that their significance could generally be recognized. Another point was the cicatrix in the mammary region, showing a previous amputation of the breast, a fact which was often concealed by the patient. If this was found, the disease of the spine was undoubtedly malignant.

Dr. B. F. Curtis had operated in a case in which the diagnosis was uncertain. The patient was a woman of 35 years. The right breast had been amputated a year previously for a supposed malignant growth. She had complained for five months of pain, not very severe in the back

and chest. Examination showed practically nothing. Later the knee reflex was lost, and very soon anaesthesia appeared. The prick of a pin was not felt below the level of the umbilicus. There were retention of urine, involuntary discharge of faeces, complete paralysis of the lower extremities and kyphosis in the mid-dorsal region. A bed-sore developed over the sacrum. The patient was examined by a number of men whose diagnoses varied from secondary deposit to Potts' disease. Operation was urged, and, rather against his own judgment, as he favored the former opinion, he was induced to do a laminectomy on the 5th, 6th and 7th dorsal vertebrae. He found the cord slightly compressed and congested. The 6th dorsal was softened and projected somewhat against the anterior surface of the cord. There was, however, no marked thinning of the cord, and nothing in the cord to account for the severity of the symptoms, which were not relieved. The wound healed by primary union, but the bed-sore was very extensive, and the sacrum necrotic. The patient died of sepsis on the 16th day after the operation.

Dr. C. N. Dowd referred to the tendency of breast cancer to form spinal metastases. In 29 cases there were five in which this had occurred. The suffering was intense. The possibility of such a metastasis was a strong argument for early operation on the primary growth.

The president said that primary malignant disease of the spine was rare, but its appearance secondarily was not uncommon. In the latter case, if the pain was severe, the diagnosis could generally be made. The diagnosis of primary new growth in the spine was more difficult, but could usually be made by watching the course of the case. There was usually great pain and often paraplegia, so that the name paraplegia dolorosa had been applied to the disease. There was no pain more severe. If the patient developed pain in the spine after having had a tumor removed there was probably a location of the disease in the spine, although the surgeon who operated might not want to admit it.

Dr. S. Lloyd had operated for the removal of a hydatid tumor of the spine in a case in which the diagnosis had long been uncertain. There was a distinct kyphosis, and among the symptoms had been pain in the lumbar region, partial sensory and complete motor paralysis, vaso-motor disturbances, sphincter paralysis and cystitis. The patient had been treated by a number of surgeons for tubercular disease of the spine. Nine years from the beginning of the symptoms the tumor was discovered and removed from between the processes of the 8th and 9th dorsal vertebrae, where the adjacent bones were eroded. The paralysis disappeared, and the man went back to his trade. A few months later he died paraplegic after being crushed in a railroad accident. The spine was fractured, and at the autopsy two hydatid cysts were found in the cauda equina.

Dr. Myers said that gonorrheal inflammation of the spine was a very rare affection, and that typhoid spine was more common, depending on an inflammation of the periosteum or other fibrous structures. Infectious inflammations of the spine followed attacks of the infectious diseases of childhood. He gave histories of two cases in which wry-neck, not differing from that of vertebral caries, had disappeared without sequel after treatment by the application of a brace with a chin-piece.

Dr. Sayre had seen only one case of gonorrheal disease of the spine. The history was clear, and there were pain and disability of the spine, a slight kyphos and stiffness in the other joints. He had seen a few cases in which erosion by an aneurism with marked kyphosis had been confounded with Potts' disease. Cases were on record in which suspension for the reduction of the kyphos had been followed by rupture of the aneurismal sac and death.

The president said that several such cases had come under his observation, which had been supposed to be tubercular disease of the spine. In one the patient suddenly fell back in bed and expired.

Dr. Myers said that traumatic in-

flammation of the spine was seen in adults more often than in children, and was usually the result of considerable violence. The kyphos was not often significant. An abscess sometimes followed, and the symptoms might include pain in the spine, not anteriorly, great disability, muscular twitching and exaggerated knee reflex. The prognosis was good, except in severe injuries. Fracture should be carefully protected, and for a long time.

Dr. Lloyd said that the violence might cause tearing of the muscles and possibly an infected inflammatory area with rigidity, but without kyphosis. There might be paralysis below the point of injury, with rectal and vesical symptoms, and in some cases an abscess, with finally good recovery. In other cases a greater degree of violence produced partial dislocation or fracture, with or without kyphosis. In these cases the crepitus was especially important, as symptoms of compression of the cord might not appear till two or three weeks after the injury.

Dr. G. R. Elliott said that when we had a distinct lesion of the spine, such as fracture of the vertebrae, laceration of the ligaments, extradural hemorrhage, the cord itself escaping, together with clearly demonstrable objective signs, such as possible bony changes, muscular atrophy, some motor paralysis and distinct electrical degenerative reactions, we had a condition far from common, and one very much more valuable in a medico-legal sense than the neurotic symptom-group called railway spine, which, when standing alone and unsupported by objective signs, admits of endless neurological speculation.

The president recalled the case of a woman who had been shot in the mouth with a blank cartridge. Stiffness of the neck and spinal paralysis developed, and the autopsy showed suppuration running down the cervical vertebrae beneath the periosteum and into the inter-vertebral foramina, with a secondary inflammation of the cord. Also the case of a boy who had been kicked over the sacrum and who was suffering from what was supposed to be spinal meningitis. An autopsy showed necrosis of a portion of the inner surface of the sacrum, with exudate outside of the dura mater, but running along the roots of the nerves, and also an inflammation with exudate intradural and subarachnoid.

Dr. Townsend said that instances of non-tubercular inflammation of the spine were extremely rare in comparison with the vast number of tubercular cases which came under observation and treatment.

Dr. A. B. Judson said that when a patient complained of spinal pain and spinal disability, the first thought was to exclude Potts' disease. It was strange that these symptoms were not found in a condition so closely simulating fracture or the worst type of traumatism. On the other hand, in the non-tubercular inflammation, as a rule, spinal disability and pain were early and prominent symptoms, marking a frank and sometimes alarming onset, very different from the long-continued and insidious approach of vertebral caries.

Dr. Gibney said that we were not apt to look for tuberculosis diseases of the spine in adults, while they were very frequent in children.

The president said that the possibility of making a mistake should be borne in mind; for instance, in an injury occurring in a man who was both tubercular and syphilitic. The only way was to go over all the points of each disease and exclude as many as possible, not forgetting that two diseases might be present in the same patient.

Dr. Myers said that if a patient were curable within a year the diagnosis of tuberculous spondylitis should be reconsidered. From a medico-legal standpoint it was important to remember that a considerable number of chronic and increasing kyphoses were not tubercular in their origin, and that such disabilities should not be rated so high in awarding damages as those which were tubercular. In life insurance, also, applicants with non-tubercular impairment of the spine should have a more favorable consideration than those whose disability had a tubercular origin.

Editorial

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CEASE FIGHTING.

The personal feeling often times engendered in medical discussions, should be strongly deprecated. As scientific men whose chief aim and purpose in life is to cure disease, and when once contracted to do our utmost in aiding nature to rapidly return to a standard of health, we should be above those petty, personal discussions which oftentimes are seen in our leading medical journals. Of what earthly use is it to call a man an "obscure practitioner," practicing in an "out-of-the-way place," or to make other references of a similar character in order to cast a slur on his arguments? We fail to recognize the connection. Sound, substantial argument never requires personal attacks, and the very moment a man indulges in the latter all fair-minded men immediately begin to question the validity of the accuser's position.

Environment does not make the thinker, whether a man lives in New York or Kalamazoo. His opportunities, of course, may be increased, his judgment intensified, his facilities for clinical observations widened, but back of all these advantages stands the man himself; and it is safe to say there is as much original thinking in the so-called country practitioner as there is to be found in many of his more happily-favored city colleagues.

We cannot all be suns in the firmament of medical astronomy, but each of us can be stars of greater or lesser magnitude, not striving to surpass the other in the brilliancy of our light, but uniting our rays to dissipate the darkness by which many medical problems are obscured. Cease fighting, brothers; cease fighting.

POST-PARTUM ECLAMPSIA.

In the treatment of eclampsia of pregnancy the preponderance of opinion in America appears to be favorable toward the induction of premature labor. In this connection Maygrier (Progres Med.) writes that a primipara, aged 26, was admitted into the Lariboisere Hospital in labor at term. For a month she had been subject to headache and edema of the legs. Within eight hours after delivery she had a fit, followed by three more within three hours. She was conscious between the attacks. After an interval of four hours a fifth fit came on, followed by coma, which terminated within an hour by death. As a rule, post-partum eclampsia, Maygrier observes, is mild. This case does not support the current theory that in the eclampsia of pregnancy it is advisable to induce premature labor. Maygrier is opposed to this practice, but when labor sets in he terminates it as quickly as possible in the interests of the mother and child.

SHALL THE THREE GREAT MEDICAL SECTS AFFILIATE?

Dr. Emory Lamphear, in the American Journal of Surgery and Gynecology, editorially attempts a solution of the rivalry of professional talent in line of peace. We quote below a few paragraphs, leaving it in the minds of our readers to decide for themselves the question of its adaptability to circumstances:

"It is probably true that the doctors are themselves greatly to blame. The way in which members of the "regular" (!)—God save the mark!—profession have vilified and abused their "homeopathic" and "eclectic" brethren in the past and the spirited manner in which these practitioners have repelled the attacks, have had much to do with the fall in public opinion. The time is ripe for the burying of sectarianism in medicine. If the progressive, honest, far-seeing members of the American Medical Association will openly and freely pass a resolution which shall allow all affiliating bodies to accept for membership graduates of reputable homeopathic and electic schools, who do not use the term "homeopath" or "eclectic" to trade upon, who are simply known as "physicians" and practice as they please (as do we all), and allow consultation with such practitioners, the problem of obliteration will soon solve itself; and one of the chief obstacles to proper medical legislation will have been removed."

"Kansas has taken the lead in the matter—as she so often does in matters of reform. This year the "regular," the "homeopathic" and the "eclectic" societies are to meet at the same time and place, and some joint sessions will be held to take united action for the purpose of securing needful medical legislation in that State. What will be accomplished remains to be seen; but it is not at all unlikely that if the American Medical Association were governed by liberal-minded gentlemen and would permit such action these three bodies of Kansas medicine men might be amalgamated, with the effect of forming one powerful

organization, which could be wielded for the public good, effectually and speedily. As it is, each must of necessity remain suspicious of the other and antagonize rather than support any measure which might possibly give the rival a supposed advantage."

"All this is unnecessary, digusting, in this day of liberalism. There is in man no stronger impulse to fight than in defense of his religion; yet at the close of the nineteenth century, under the broadening influence of liberal education and the democratic spirit which is affecting men of every clime, religious barriers are melting, as ice in the summer's sun. Why, then, should the less important divisions between medical sects remain undisturbed? They are out of harmony with the day in which we live."

"What is the remedy for this one great cause of degeneracy? Let every city and county medical society in the country which is in affiliation with the American Medical Association pass this resolution and instruct its delegates to vote for it:

" 'Resolved, That henceforth all local and State medical societies in affiliation with the American Medical Association be permitted to admit to full membership any graduate of a reputable homeopathic or eclectic college who is an honorable man, a conscientious practitioner, and who does not use the name "homeopath" or "eclectic" upon his sign or card or in any other manner calculated to secure business upon the assumption that he is practising some peculiar system of medicine.'

"Another indication of the general lowering of professional standing is the condition of the advertising pages of many medical journals of to-day. Time was when no secret remedy could secure insertion of an advertisement in any medical journal presumed to be 'half-way decent;' indeed, it would have been folly to place it there even if the editor and publisher would permit it—there was none so low as to prescribe it, and the money paid would have been wasted. What of to-day? A dozen journals of America are carrying the ad. of 'Candy Cascarets' —a patent medicine pure and simple —with no pretense of a publication of even a supposed 'formula;' still more are running the advertisement of 'Ripans Tabules' —a patent medicine under the control of Geo. P. Rowell & Co., the advertising agents of New York City—and not a doctor in America knows their composition; 'Antibrule,' a new St. Louis remedy of unknown composition, is equally conspicuous upon the sign boards along the streets, on the street car placards and in the pages of medical journals, edited by highly ethical members of the American Medical Association; and now comes the 'old standard household remedy, Ayer's Cherry Pectoral,' and applies for admission to the advertising pages of some forty of the prominent journals of America! It will undoubtedly secure space in a large number.

"This condemnation of patent medicines of unknown composition must not be taken as including the proprietary articles of known formula so widely advertised and used; many of them are of undoubted utility—some of great excellence. But no physician should ever prescribe, and no medical journal should ever advertise, any remedy which has not its formula always kept prominently before the eye of the physician. That the remedy should not be presented to the general public except through the prescription of a physician is also a reasonable demand upon the part of the medical profession, but one that cannot be well enforced in the matter of infant foods, cod liver oil emulsions and the like; and certainly cannot be with patent medicines like the ones mentioned. Some manufacturers, like the Antikamnia Chemical Co. and the Imperial Granum Food Co., are making conscientious efforts to keep the people from buying their products except upon the advice of physicians, are rigidly excluding their advertising from the general public—and so deserve the hearty support and encouragement of the medical profession. Of some others, who are reaching out for the 'dear public,' as well as the 'dear doctor,' as much cannot be said."

Correspondence.

NIGHT-MARE.

To the Editor of "Times and Register:"

I have this consolation with regard to any ignorance I may manifest on this subject, that my readers are equally ignorant. I have been able to get only the smallest help from physicians and none from their writings on this subject.

It is not a character of case in which a physician can do a paying practice, but still it is in his line of study, and suffering humanity looks to the profession to find if possible some cure for the incubus.

Who are subject to night-mare? I have not been able to discover any special class of persons subject to this sleep torture. The rich, the poor, the vital, the strong, the nervous, the weak, the student, the illustrious, the indolent and the industrious all seem alike subject to it. Some of all classes never have it.

Symptoms: The only symptoms before going to sleep are nervousness, insomnia and distinct visual conceptions on closing the eyes, especially if of an unpleasant nature. It amounts at times to dreaming before going to sleep. The symptoms in sleep are unpleasant dreams, especially those in which we are not able to avoid dangers, troubles and enemies, and those in which we are not able to do what we attempt. The first thing one should do in such cases is to wake up. But, says a friend, when he goes to sleep he generally forgets to carry his "wakes." The more one practices the oftener he will think to carry his "wakes" with him. When one arouses from such dreams his symptoms are a fall of temperature, intense drowsiness, so much so that he is often sound asleep again in a few seconds, and only to suffer the dreaded night-mare, which he might have escaped if he had only understood the warnings of his dreams.

At such a time one should never fail to get up, light the lamp and thoroughly rouse himself before going back to bed. A sip of whisky is a sure preventive of a return of the incubus that night.

If one does not wake until the paroxysm is over, he is warm enough, perhaps in a profusion of sweat, and is not at all sleepy. I have never been able to find but one case of visual observation of a person suffering with night-mare. Mr. Gillespie, living near Ripley, Tenn., stated to me that once while sleeping in the daytime out in his yard he was taken with a severe night-mare, that a neighbor rode up to the gate and called him by name; he knew who the neighbor was before he reached the gate or called. The neighbor saw from his stillness and blackness in the face that something was the matter; dismounted, ran to him, observed his neck vein as large as a man's finger and black, and lifted him to his feet before he awoke. The neighbor failed to report whether Mr. Gillespie's eyes were open or closed, a very desirable question to know, for how did he recognize his neighbor with his eyes closed and sound asleep? An interesting psychological problem might arise from its answer.

I know a Dr. Lackey, who was, while living, subject to the most frightful spells. He was usually attacked in his soundest slumber, and could rarely awake at the end of his suffering, but would leap from his bed in such a fit of excitement as sometimes to alarm his neighbors across the street at the dead of night. One night, in a severe attack, and after the smothering sensation had passed off, he thought the ceiling was falling in on him; he sprang out of bed to run, thought of his wife, turned back at his own risk to save her, gathered her in his arms, and was just in the act of dashing

her through the window, in order to save her life, when she, by slapping and calling him, checked him in time to save herself from taking passage through the window. His opinion was that uremia is the cause of night-mare, brought on mostly by exhaustion or imprudence. He gave me permission to publish these facts. Children sometimes have what is called night-mare. They spring out of bed greatly frightened, and remain so sometime before they can be persuaded to go back to bed again, and next day remember nothing about it. Such cases are, I am of opinion, caused by night-mare and inability to awake after it ends. There seems to be such a state as some parts of the mind being sound asleep and other parts awake, as in cases of somnambulism. When the incubus attacks me the first thing I do is to wake up; the second thing is with much struggling to throw it off, and the third is to wake up again, as the first waking was a mistake.

With much practice I have gotten so I can breathe rapid and short, groan, rock my body a little, mov one arm and one leg, but with all my expertness I cannot perform more than one of these at a time. When I am where someone can hear me I groan like no other man can groan. I do this to get help, and it usually so frightens a body, for they think I am dying, that help comes quickly. My family have learned the groan "by heart," and sometimes awake me by the time they awake themselves.

The conditions necessary to bring on the trouble are, first and chiefest, exhaustion, then indigestion, oversleep and sleep at unusual hours. Exhaustion produced by great care trouble, sorrow insomnia, severe mental or physical work are prolific causes of incubus to those who are subject to it.

The positions in sleep most likely to bring on suffering are, sleeping on the back, with a low head, or sleeping on the side, inclined backward, with face turned directly upward. Some think it is more likely to come on while sleeping on the left side than on the right, but I am not able to give an opinion. I have it about equally on either side. Put a pillow under your shoulder and two pillows on your bolster under your head, sleep on your side and every time you wake up turn over and try the other side, and you need not be much afraid of night-mare. Sleep in a sitting position, or leaning back in a chair, one is perhaps never troubled with bad dreams or night-mare.

Bad dreams are the greatest blessings that come in sleep; they have doubtless saved many lives. They are precursors of the half-death, and give such excitement to the person as to lessen the severity of the attack, and sometimes to cause awakening before the attack. I have learned by experience, with a tolerable degree of crtainty, to wake when my dreams become unpleasant. I have waked at all points from a too sound sleep to the incipient paroxysm, and even when it had gotten hold of me. I always take observations at such times. Perhaps the most important discovery I have made with regard to it is the low sensational temperature preceding the attack, and the tendency to catarrhal congestion. I feel sure I am correct in this, for I have corroborated it by many observations. I think if the mercurial temperature could be taken it would be several degrees, or at least somewhat below normal.

Results: As to results of night-mare we have no statistics, and our conclusions can only be conjectural. It seems the oftener one is attacked the more subject he is to it. These attacks must be very severe on the nervous system, and enough of them doubtless would produce the same effect on the mind as fits or convulsions. It would be interesting to know how much of the imbecility occurring in old age is due to these death-struggles at night. I am of opinion that Secretary Bayard's daughter died of night-mare. Mental and physical exhaustion, caused by the long continued high tension of the mind during the evening's reception, the deprivation of sleep, the excitement and anxiety upon her mind, regarding the next evening's

reception, in which she was to assist Miss Cleveland at the White House, and a long sleep in the day time, any one of which was enough to cause night-mare, altogether may have brought on the night-mare of death. People are occasionally found dead in their beds. I knew a Captain Bernard in Forrest's cavalry to be found dead in his bed one morning after having eaten a hearty supper at night. Doubtless he was a victim of the terrible incubus.

Cause: We now come to mere conjecture. We are of opinion, however, that it is caused by the blood's flooding the motor nerves at the base of the brain. That difficulty is brought on by sleeping on the back, or even when the head is turned back with the face up, or with a low head, points to such a cause. These are the nerves that control the motions of the limbs; that we are unable to move during the incubus indicates that these nerves must be affected. Dr. R. S. Groin, of McKenzie, Tenn., was once trying to extract a bullet near the jugular vein, when the patient with convulsive gasps fell over as if dead. The doctor, guessing that the ball had pressed against the vein so as to check the flow of blood from the head, quickly cut the temple artery which gave relief. This shows that a garge of blood in the head destroys power to act, and even life if continued. The intense coma preceding night-mare, and preceding convulsions may have a kindred cause. The burning up of the muscles and tissues by the oxygen of the blood, generates energy or heat in the person, but it is a destroying process. The blood also carries and deposits nutriment to the depleted tissues. In the day the former process is the greater, in the night, or rather during sleep, the latter is. In a person greatly exhausted the building-up process goes rapidly on while sleeping. All the energies of the system seem to be withdrawn from the functions of thought and motion, consequently but little of the consuming process is going on, sleep becomes deep, the production of heat lessened the blood slightly cooled, fails still further to burn the tissues to generate heat, and to carry off the effete matter of the body; thus the work grows from bad to worse, the capillaries fail to do their duty, become clogged by effete matter and the blood thickened by falling temperature, fails to return as rapidly as the heart sends it forth; hence the enlargement of the veins, bad dreams and, if the base of the head is sufficiently low to allow a super abundance of blood in it, night-mare. I doubt if indigestion produces the trouble, but when a vigorous stomach attacks a gourmand supper it may so withdraw the vitality from other parts of the body as to bring about the same effect as exhaustion. The sick, I believe, never have night-mare, especially in case of fever. Perhaps because the temperature is above normal. The sick and tired are disposed to rest on their back, as this position is most favorable to recuperation and a low temperature and least favorable to wasting vitality. I think fevered patients would better lie on their backs, but in case of convulsions they ought to rest on their sides, with their heads well pillowed.

E. H. RANDLE,
Byhalia, Miss.

Clinical Medicine.

In charge of DR. J. J. MORRISSEY.

THE BECHTEREW TREATMENT IN EPILEPSY.

De Cesare (Rif. Med.) records eight cases of epilepsy treated for a period of six weeks with a mixture of bromide of potassium, codein and adonis vernalis, given twice a day (Bechterew treatment). In four cases there was complete suspension of the fits, in the three other cases the fits were replaced by infrequent attacks of vertigo, and in the last case there were four attacks of vertigo and two convulsions. In each case the attacks were much reduced in frequency; no bad results were observed. The digestion was not impaired, the pulse was fuller, the temperature normal, diuresis increased, sleep uninterrupted and calm, and the mental condition unchanged. The author believes the results were due to the combination of drugs, and not to the bromide alone.

THE DIAGNOSIS OF EARLY GENERAL PARALYSIS.

Goffroy in a clinical lecture gives some interesting data upon which to base the differential diagnosis of this disease from other conditions strikingly simulating it in character. One patient had been under observation for 14 years, and who was admitted in the first instance as a case of general paralysis, but whose subsequent history proved the diagnosis to be erroneous, as the case afterward proved to be one of paralysis aptaus, and Goffroy, it may be added, points out that the latter disease is itself one of great difficulty to diagnose in some cases. In alcoholic patients there may be tremor of the tongue, lips and hands, and a slurred articulation. There may also be, and this is a fact not sufficiently known, inequality of the pupils. When these symptoms are associated, with a certain degree of mental elevation, it is obvious that a diagnosis of general paralysis is quite justifiable.

In such cases, however, all these symptoms may disappear, more particularly when alcohol is stopped. The author points out that even in such cases the graver diagnosis may be avoided by attention to a few important points; thus, if the inequality of the pupils be accompanied by dilatation or myosis, and if the Argyll-Robertson phenomenon be present, together with loss of the accommodative reflexes, the evidence is in favor of general paralysis, for this association of loss of light reflex has not been observed so far in alcoholism. These signs occur very early in the case, and are consequently of great value in aiding a diagnosis.

PRURITUS AS A SYMPTOM OF GENERAL PARALYSIS.

As an example of the latter he quotes a case of pruritus of the thigh in a neurasthenic male which disappeared entirely with the amelioration of the nervous affection. The first of his general paralytics was a man, aged 35, with a syphilitic history, who had suffered from the disease for a year and a half; from the first he was affected with violent irritation over the whole body, but particularly the face and head, so that he scratched himself till blood came. There was no other cutaneous affection. Four weeks' franklinization relieved both the psychical condition and the pruritus, which subsequently returned together. The pruritus had lasted six months when the author first saw him; it began behind the ears and spread

over the whole body. A month's franklinization again benefited both the nervous system and the skin, both of which subsequently relapsed. The reason that cases such as these have not got into the text-books is that the skin symptoms usually appear early and lead the patient to consult a dermatologist while the nervous affection is still in abeyance; later, when they come under the care of the neurologist the pruritus has disappeared. The close association of the two is shown by their simultaneous amelioration and relapses. The skin symptoms in general paralysis differ from those in tabes and other affections of peripheral nerves in three respects; they lead to violent scratching instead of mere rubbing, they are not associated with trophic cutaneous lesions, and they are eventually general and not localized. This general distribution may be due to a toxemia or to the projection of a general disease of the central nervous system. Against the first view is the absence of other affections of the blood and internal organs; in favor of the second are the demonstrable cortical lesions of the disease. In this case the pruritus would resemble the projected sensations in an amputated limb or the projected aura in epilepsy. It is further noteworthy that with the extinction of the functions of the cortex during the progress of the disease the pruritus disappears as well. The author accordingly concludes that pruritus without accompanying skin changes may be a prodromal symptom of general paralysis, and that it diminishes, and eventually disappears, with the progress of mental decay. There is much probability in the view that the pruritus is a projected sensation originating in a cortical lesion.

UNILATERAL BRADYCARDIA.

E. Moritz (Moscow Congress, 1897) relates a case of cardiac affection—gummatous myocarditis? — occurring in a man, aged 43, with a history of having had syphilis 20 years ago. In the course of four months under anti-syphilitic treatment the symptoms gradually improved. The presence of venous pulsation in the patient's neck enabled Moritz to compare the action of the right side of the heart with that of the left, and he came to the conclusion that at one time the right side of the heart was contracting two or three times to a single contraction of the left ventricle.

Sarbo (Pester Med. Chirurg. Presse, 1897, No. 37) points out that skin symptoms, so well known in tabes and syringomyelia, have not been described in the course of general paralysis, and records two cases of pruritus in that disease. Both belonged to the class of cases in which no other skin change precedes the irritation, which was, moreover, on each occasion at first local and not general. The nervous system can act in two ways in the causation of pruritus, either, as in the case of pregnancy completing the arc of a reflex action, or producing the irritation as a symptom of its own disease.

THE EFFECT OF HYPERPYREXIA ON GONORRHEA.

Aboutkoff reports five cases of gonorrhea in which the temperature rose to 104 degrees F., and even higher, owing to complications of the disease itself (such as prostatitis, pyelitis, etc.), and in one case owing to an attack of enteritis. The effect of this hyperpyrexia was speedily to check the urethritis and cure the disease. This favorable influence on the course of gonorrhea the author explains by the great sensitiveness of gonococci to changes of temperature. Observations made on artificial cultures of these germs have shown that they develop and thrive best at a temperature of 78 degrees F. to 86 degrees F., but that their development ceases and they perish when a temperature of 101 degrees F. is reached.

—Vratch, No. 8, 1898.

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CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

TREATMENT OF GONORRHEA.

Janet (Revue de Therapeutique Medico-Chirurgicale) gives his experience since 1892, when he introduced the irrigation treatment for gonorrhea. He thinks irrigation the best method, and employs it during the earliest stages of the disease; in fact, as soon as the disease is established. He strongly condemns the practice of leaving the urethra alone during the early stage, and thinks such practice is the cause of most cases of chronic urethritis, and of most of the complications of gonorrhea. He maintains that during the first few days the gonococci cause damage to the urethral mucous membrane, and also infect the organism with toxins. Janet states that during his five years' experience he has had no case of stricture or other complication when irrigation was begun in the first stage. As regards drugs Janet still considers permanganate of potassium the best, although in cases where this failed to act well he had good results with itrol and argonin; he has not yet tried Neisser's protargol. His abortive treatment consists in irrigation of the anterior urethra only (unless the second glass of urine is turbid, showing that the posterior urethra is affected), twice a day with a lukewarm solution of permanganate, 1 in 2000, from a height of 50 cm. above the penis. After three or four days the irrigations are done every eighteen hours, then every 24 hours, the solution being strengthened up to 1 in 1000 by the eighth day. If the discharge is then mucous, and contains no gonococci, the irrigation is left off. If there is recurrence, or if the posterior urethra is affected from the first, complete irrigation of the whole urethra is practiced, the anterior urethra being previously cocainized. The douche vessel is raised to 1 metre above the penis, and the patient told to attempt to micturate; the solution is then allowed to pass slowly into the bladder by regulating the pressure carefully. For these cases he starts with a 1 in 4000 solution, which is afterwards gradually increased. If cases are not quickly cured by this method extra-urethral accumulations of gonococci are present either in the prostate, the urethral glands or crypts of the fossa navicularis. Such cases he treats by a kind of gentle massage of the prostate or urethra, as the case may be, to express all secretions containing the cocci, followed by irrigation. In cases of stricture complicated with gonorrhea he uses the ordinary irrigation if the stricture is slight; if more severe, dilatation and irrigation combined at the same sitting. Cystitis, if due to simple irritation, he treats by irrigation of the bladder with small quantities of permanganate; if the cystitis is infective he combines silver nitrate with the permanganate (1 in 4000 of each), or else a 1 in 4000 solution of itrol. If orchitis is present he suspends irrigation till the acute symptoms have passed off.

The above is an excellent exposition of the modern and scientific treatment of gonorrhoea, oftentimes the bane of the physician as well as the patient.

Several valuable contributions on this subject, so important to the general practitioner, for it is especially into his hands this class of cases is liable to drift after initiatory symptoms have declared themselves, have been furnshed by Prof. Ferd Valentine, of New York. He has written largely and exhaustively on the subject of gonorrhea, and his results have exceeded the expectations aroused when this form of treatment was first inaugurated. The

after-consequences so dreaded in past years, when the hand syringe, combined with nauseous doses, formed the staple method of treatment, have been relegated to a condition of "innocuous desuetude," and the simple practical and definitely curative irrigation has taken their place.

To those of our readers who wish to enter more fully into this subject we recommend Prof. Valentine's valuable contributions. Dr. Valentine is professor of genito-urinary diseases at the New York School of Clinical Medicine.

BOTTINI'S OPERATION FOR HYPERTROPHY OF THE PROSTATE.

Freudenburg reports a case of complete retention from prostatic hypertrophy in a patient aged 63, which was entirely removed by galvano-caustic incision of the enlarged gland after the failure of bilateral castration. The urine, which after the first operation had remained turbid, became quite clear after the second, and the patient is now able to relieve his bladder regularly without using a catheter. This case, it is stated, shows that Bottini's operation acts directly by removing the obstacle to the discharge of urine, and not, as has been suggested, by merely destroying the orifices of the ejaculatory ducts, and the ganglia and nerves which extend to the vesiculae seminales and vasa deferentia. It is of practical importance also, as it suggests a doubt whether it be advisable to perform castration for the relief of urinary retention before an attempt has been made to overcome this result of prostatic enlargement by galvanic incision of the gland.

—Berlin klin. Woch., No. 46, 1897.

INCURABLE CANCER OF UTERUS.

Berton published the results in Winckel's wards of treatment of advanced uterine cancer by free burning of diseased tissue. The thermocautery was the agent for this purpose in all the cases. In 60.8 per cent. the patient remained free from the three cardinal symptoms, hemorrhage, discharge and pain, for from a fortnight to six months, or seven weeks on an average. Slight rise of temperature was observed in 32 out of 100 patients. Only 1 death is noted; the patient had already undergone scraping three times, and died nine days after the fourth application of the cautery from exhaustion.

—Centralbl. f. Gynak., No. 43, 1897.

PATHOLOGY AND TREATMENT OF PRIMARY TUBERCULOSIS OF THE KIDNEY.

This was the subject of an interesting paper by Israel at the last meeting of the Berlin Surgical Society. The teaching of Guyon, that tuberculosis of the kidney was usually the result of an upward extension from the bladder, has been reversed in the light of more extensive operative experience. In 21 cases in which the kidney was removed by Israel, the disease was primary in the kidney in 16. In three cases, although there was tubercle in the testicle, the disease was also primary in the kidney, and the bladder was not affected. Fully 30 per cent. of all suppurative conditions in the kidney are tubercular. Women are much more affected than men (12 out of 16 cases). Tubercle of both kidneys is rare (12 per cent.). The majority of patients are between 20 and 40. Israel distinguishes the following types:

1. A caseating form, with the formation of cavities, which is by far the most common (81 per cent.). In its advanced stages the condition may closely resemble "simple" pyonephrosis; the tubercle originates in the boundary area between cortex and medulla, more often at the poles (especially the lower), and may long remain stationary and localized; at this stage, partial removal of the organ may be undertaken, and has been performed by Israel in one case with perfect recovery. Even in the advanced cases the caseating form of renal tuberculosis yields the best results. Inasmuch as it is always possible to separate the parenchyma of the organ from its capsule, the author strongly recommends subcapsular enucleation as the routine procedure. Perinephritic abscesses are

secondary to the disease in the kidney, either by the bursting of a tubercular focus into the surrounding tissue, or by extension along the lymphatics; in the latter case, the capsula propria remains intact.

2. The second form is met with as a primary tubercular ulceration of the apices of the papillae, where these project into the calyces; it may be attended with profuse renal hematuria.

3. The third form is characterised by the presence of numerous tubercular nodules scattered throughout the entire kidney, without any tendency to softening. Death usually results from tuberculosis in distant organs. This form is fortunately very rare.

When tubercular disease of the kidney is left to itself, it tends to extend downwards along the urinary tract. Israel found the bladder infected in 11 out of 21 cases subjected to operation. Tubercle of the bladder is not to be regarded as a contra-indication to nephrectomy; the former condition is often influenced favorably by the removal of the diseased kidney. The condition of the other kidney is of greater importance. (The renal tuberculosis was bilateral in two out of 16 cases.) The existence of waxy degeneration and nephritis is to be investigated. Catheterization of the ureter is not conclusive, because albumin may be present in the urine from the other kidney, as a result of the diseased condition of the affected kidney, also because albuminuria is not a reliable evidence of renal tuberculosis; further, tubercle bacilli are very rarely to be demonstrated in primary tubercle of the kidney until the bladder has become involved. The simultaneous appearance of tubercle in the kidney and testicle, while the ureter and bladder are intact, proves that the former have been infected through the circulation and not by extension from one to the other.

The clinical symptoms of renal tuberculosis consist in disturbances of micturition, which are often misinterpreted as evidences of cystitis; increased frequency and urgent desire to empty the bladder, along with burning or pain during micturition, are characteristic. Pain in the kidney itself, or attacks of colic with pyrexia, are less frequent. Hematuria was present in four out of 16 cases; in one case it was profuse and persistent, and was associated with primary ulceration of the apices of the papillae. The disturbance of the bladder functions is not to be regarded as evidence of disease in the bladder itself, but for the most part as "radiation-symptoms" originating in the kidney.

Israel reports 21 cases of partial or complete nephrectomy with eight deaths; three of these were attributed to shock, waxy disease, and chronic nephritis of the other kidney, and occurred shortly after the operation. The remaining five deaths occurred after the wound was healed, and were due to tuberculosis of other organs.

In Israel's experience, nephrotomy affords only temporary relief, and usually requires to be followed by nephrectomy; its mortality is very much the same as primary nephrectomy; it is therefore only to be practised when the renal tuberculosis is bilateral, and where a rapid operation is imperative.

—Centralbl. f. Chir., Leipzig, 1st Jan., 1898.

Albarran (of Paris) reports eight nephrectomies with one death on the 10th day of meningitis, and 11 nephrotomies with one death. All the successful nephrectomies are still alive, while, among the 10 nephrotomies, seven died after an interval ranging from three to seven months. These figures support the contention that nephrectomy is the better operation in renal tuberculosis. Nephrotomy is only a palliative operation. The respective indications for the two operations depend—(1) On the anatomical lesion of the affected kidney; (2) the condition of the other kidney; (3) the general condition of the patient. His conclusions may be said to agree with those of Israel.

—Rev. de chir., Paris, 1897, Suppl.

Current Medical Literature.

SCARIFICATION AS A METHOD OF TREATMENT IN ECZEMA AND PSORIASIS.

At a recent meeting of the Societe de Therapeutique, L. Jacquet (Sem. Med., March 2d) claimed to have been the first to employ systematically the scarification method of treatment in eczema and psoriasis. He begins by carefully cleansing the affected surfaces by the constant application for a longer or shorter period of time of cold potatoes poultices; these are often renewed, and are covered with elastic tissue; no antiseptic being added. When the surface has been thoroughly cleansed, he scarifies with a sharp point in parallel lines, 1 to 2 mm. apart, down to the superficial layer of the derma. The blood is allowed to flow freely, and bleeding is even kept up by the application of tepid boiled water; the surface is then covered with a few folds of tarlatan steeped in the boiled water until potato poultices can again be applied. These are kept on till the next sitting, which as a rule takes place three or four days later, when ever trace of the scarification has disappeared. Carried out in this manner the scarifications are well borne, even by children. The invariable result of each sitting is, according to Jacquet, that a few minutes after the operation there is increase of redness, with slight tension and heat; these phenomena last one, or at most two days, after which redness, swelling, heat, smarting and itching are distinctly less than before the scarification. By this method Jacquet says he has cured 11 cases of eczema of different kinds, all of which had proved refractory to other recognized modes of treatment. Among them were three cases of lichenoid eczema (of the dorsum of the feet, of the hands and of the forearms); one old bilateral eczema of the preauricular region; three of the face in adults, and four of the face in children. Six to seven sittings, according to the nature of the case, were required, and Jacquet states as a general rule that the resistance to the treatment increases in a regular ascent from acute eczematization to lichenoid eczema. In psoriasis the method is applicable only when the discs are isolated and few in number. It is indicated particularly in lesions of the hand and face, and, in the case of women, of the chest and the upper part of the back. It utility, though limited, is real; Jacquet says that by means of it he has completely cured two patients, one with psoriasis of the back of the hand in two months; the other, a woman who on account of the disease could not wear a low dress, in one month. In both these cases carefully applied treatment of all kinds had failed.

Bacon contends that adhesions of the female prepuce are as common a source of trouble in girls as in boys. They act as an irritant and lead to masturbation and various neuroses; they prevent development of the glans clitoridis and give rise to an eroticism. It is suggested that the prepuce of the new-born girl be examined, as well as that of the boy.
—The Philadelphia Medical Journal.

THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH.

BY W. SOLTAU FENWICK.

A good example of this lately came under my notice, in the person of a medical man practising in London, who, while apparently in perfect health, indulged rather too freely at a public dinner, with the result that on the next day he suffered from the usual symptoms of acute indigestion. But instead of improv-

ing after a day or two, the stomach continued intolerant of solid food, and within a week even milk gave rise to discomfort. The patient rapidly lost flesh and strength, a nodular tumor made its appearance in the region of the lesser curvature, and death occurred at the end of five months from cancer of the body of the stomach, with numerous secondary growths in the liver and peritoneum. More frequently the disease commences with the symptoms of subacute gastritis, which recur at short intervals without obvious cause, until the development of some characteristic phenomenon demonstrates the real nature of the complaint. Loss of appetite or actual aversion to food constitutes one of the earliest symptoms which call for medical advice. Thus, a few years ago, a woman of middle age came under my care for what was supposed to be a neurosis of the stomach. Her only complaint was that for several weeks she had been unable to enter a butcher's shop to give the necessary household orders, because the sight of the raw meat made her vomit. She had also developed a most profound dislike to animal food, and restricted herself entirely to eggs, milk and farinaceous substances. There were no smyptoms of dyspepsia, nor could any signs of gastric disease be detected. A few weeks later the anorexia became complete, the patient rapidly lost flesh and strength, suffered from severe pain in the epigastrium, and finally died at the end of 11 months, from medullary carcinoma of the body of the stomach. Progressive emaciation and anemia are amongst the earliest objective symptoms of the disease, and must always be regarded with the utmost suspicion, when associated with a painful form of dyspepsia occurring after middle life. Finally, it must be borne in mind that loss of energy, or a feeling of extreme fatigue in the early hours of the afternoon, frequently occurs in connection with abdominal cancer; indeed, it is not unusual for medical advice to be sought, in the first instance, solely on account of this feeling of extreme weakness and lassitude.

—Edinburgh Med. Jour., March, 1898.

ABDOMINAL SECTION — AND AFTER?

The ultimate results of abdominal operations from which the patient recovers are not always entirely satisfactory. Dr. W. Taylor and Dr. W. Russell, of Edinburgh, reported eight years ago some very evil results following the use of the silk ligature in ovariotomy. In the discussion on Mr. Doran's paper on the Management of True and False Capsules in Ovariotomy, at he October meeting of the Obstetrical Society, Dr. Herbert Spencer pointed out that intestinal obstruction from the adhesion of intestine to the stump after ovariotomy was by no means rare, as the experience of general hospitals amply proved. A month later, at the Harveian Society, Mr. Doran showed how frequently hernia of the abdominal cicatrix followed laparotomies, the patient not invariably returning for relief to the original operator.

In the last volume of the Transactions of the Medical Society of London there is a highly instructive monograph on after-histories by Mr. J. D. Malcolm. In his table of over a score of cases in which an abdominal section has been performed a second time, will be found some valuable clinical records of obstruction after laparotomy. A very careful watch should be kept on all patients on whom a severe abdominal section has been performed; one of Mr. Malcolm's cases was watched for two, another for three and a third for 11 years, all ultimately requiring operative interference for intestinal obstruction.

Another question is that which was raised by Pfannenstiel in 1894 as to the condemning and removal of the apparently healthy fellow to an ovary bearing a new growth. He maintained that certain forms of ovarian tumor almost invariably infect both ovaries, one often very long after the other. This matter is grave, for recurrence causes the patient extreme distress, and its possibility places the operator in a dilema; he cannot feel certain whether it is best to remove a healthy ovary on speculation, or to leave it and distress the patient by reminding her that the disease may recur or to

say nothing and to risk discredit not entirely undeserved. The dread of intestinal obstruction accompanies almost every possible form of laparotomy, so the more we know about it the better. What the surgeon especially desires at present is not so much long series of any particular abdominal operation, showing the percentage of immediate recovery, as similar statistical work on after-histories. The result of labor of this kind is favorably displayed by Dr. Bangs, of New York, in an important article on the remote results after operations for renal tuberculosis. That writer has taken great pains in the classification of 135 cases, grouping separately not only the deaths and recoveries, but also such after-histories as could be placed under the heading "detailed statement," and such as consisted solely of a note that the patient was living so many years after operation.

—British Medical Journal.

THE PROGNOSTIC VALUE OF VARICOCELE IN TUMORS OF THE KIDNEY.

At a meeting of the French Urological Association, M. Leguen, of Paris, said that varicocele symptomatic of renal tumors had not only the great diagnostic importance attributed to it by M. Guyon, but also possessed great worth as regards prognosis. From a clinical and anatomo-pathological study the speaker was convinced that varicocele is not due to compression of the spermatic vein by the tumor, but by degenerated glands. He had had recently the opportunity of confirming upon a patient the conclusions to which he had been led two years ago. Patient presented himself with the three principal manifestations: hematuria, varicocele and tumor of the left lumar region. The diagnosis was cancer of the left kidney, large in bulk; and an exploratory laparotomy was performed in order to learn the size and connections of the growth. During the operation he perceived that the spleen only was enlarged, and that the kidney showed no degeneration. The patient did not react and died at the end of two days. At the autopsy a cancerous growth was found in the left kidney, together with an enormous mass of enlarged glands along the vertebral column and compressing the spermatic vein.

The case shows conclusively that there is no relation between the size of the tumor and the occurrence of varicocele. The latter is only an external sign of the secondary glandular involvment. According as a cancer is accompanied by a precocious or delayed varicocele we may conclude that the glands have been implicated. This conclusion, therefore, diminishes the hope that had been founded upon the results in the case of small tumors hitherto considered as curable by nephrectomy. In these conditions we should either not operate or, if intervention be attempted, all the glandular masses should be removed.

—La Tribune Medicale.

TUBERCULOUS ENDOCARDITIS.

Etienne has made a careful study of the occurrence of endocarditis in the course of tuberculous affections. Eliminating, of course, all chronic forms of endocarditis as having a very different origin, he finds that an acute form of inflammation of the cardiac valves is sometimes found associated with tubercle. Careful examination of these cases, however, throws doubt upon the specific origin of many, for, as the author shows, it is possible for septic conditions, such as are frequently found in the later stages of tuberculous disease to manifest themselves by endocarditis. In such cases careful microscopic examination has failed to reveal the presence of the tubercle bacillus in the vegetations, while, on the other hand, various forms of bacteria met with in other instances of endocarditis are easily demonstrated. Under these circumstances very many cases of endocarditis found in tuberculous patients are not to be considered as tuberculous endocarditis in the proper sense of the word. On the other hand, abstraction being made of all these, some few remain, in which small caseous foci may be discovered in the vegetations, and

the ordinary methods of staining reveal the presence of Koch's bacilli. Therefore, tuberculous endocarditis is certainly a pathological entity, though a rare one.

—Arch. de Med. Exper., January, 1898.

CAISSON DISEASE.

Hoche discusses the diseases of the nervous system caused by increased atmospheric pressure, as seen in diving, etc. He relates two cases occurring in men laying the foundation of a bridge. In both there was evidence of an affection of the dorsal cord; in one the lateral columns and in the other the posterior columns being chiefly involved. One case covered completely, and the other was making satisfactory progress. The author discusses minutely the mode of the origin of the disease. The symptoms do not appear for two to 30 minutes after the patients come up. Evanscent symptoms, including obscuring of the sight, tinnitus aurium, mental confusion and excitement, disturbed speech, loss of consciousness, monoplegias may be present. By far the most common manifestation is a spinal paraplegia, often of a spastic character. More rarely tabetic symptoms may be observed, which persist after the paraplegia has passed away. As regards life, the prognosis is good if the patient survives the first symptoms; and, as regards complete recovery, a tolerably large number get well. Sometimes a permanent exaggeration of the reflexes remains. There are very few cases which have been minutely and thoroughly examined in relation to the morbid anatomy. The author refers to researches, experimental and other, of Leyden, Bert, Rensselaer, and others, as well as to the investigations of Kadyi into the vascular distribution in the spinal cord. He arrives at the following conclusions: The disease is produced by the too rapid change from high to lower pressure, gas being liberated in the blood and tissue fluids, especially nitrogen. The quantity of such gas escaping determines the severity of the disease. The gas in the form of bubbles makes its way like emboli into the central nervous system, and produces here an ischemic softening by obstruction of the terminal arterioles partly depends on the vascular arrangements. The type of dorsal paraplegia is directly due to the peculiarities in the distribution of the vessels of the cord. The relatively good prognosis is due to the easily absorbed gaseous emboli. The author also refers to the question of compensation for injury in this disease, and he contends that such compensation may be enforced, as the complaint is quite on a different footing from such lesions as those of chronic lead or phosphorus poisoning.

—Berl. klin. Woch., May 31, 1897.

ACROMEGALO-GIGANTISM.

Matignon describes the case of a Chinaman, aged 25 years, who was at the same time a giant and subject of some of the changes characteristic of acromegaly. He was 1 metre 83 cm. in height, being 20 cm. above the ordinary stature of the Chinese, and this in spite of the fact he had marked scoliosis which developed at the age of 19. The signs of acromegaly were the dorsal curvature, prognathism, exaggerated development of the lower extremities of the humeri and radii, and the large size of the mastoid processes. The general giant growth was however more prominent than the acromegaly. Brissaud in 1896 applied the term "acromegalo-gigantism" to this combination. In Matignon's case there was great muscular weakness, and while some parts of the body had developed excessively others showed arrest or retrogression of their ordinary development; the thyroid and testes were in a rudimentary condition, and the deltoid, the muscles of the arm, and of the thenar and hypothenar eminences were partially atrophied. The author speculates as to the subsequent course of events, and as to whether the signs of acromegaly will eventually become so marked or even more prominent than those of gigantism. He has seen another case of acromegaly in Pekin. The patient was a Tartar woman without any signs of general giant growth.

—La Medecine Moderne, November 6, 1897.

THE OPERATIVE SURGERY OF GASTRIC ULCER.

Heydenreich gives the indications for surgical interference in gastric ulcer: (1) In perforation it is absolutely necessary as early as possible before the perforation, and to wash out the abdomen. Since 1894 the mortality after operation has fallen to 52.94 per cent., and without operation the condition is almost necessarily fatal. (2) For stricture of the pylorus. In this condition it is hard to distinguish obstruction from swelling of the tissues round the ulcer, or from pyloric spasm from true fibrous stricture. For the latter there are three possible operations: (a) Resection of the pylorus; (b) gastro-enterostomy; (c) pyloroplasty. Of these the first is the most dangerous, and has no advantages over the others, unless the ulcer can be excised with the pylorus. Pyloroplasty is not applicable if the ulcer extends to the pylorus, or where the pylorus is adherent, and its walls have lost their softness. When there is a choice between the second and third methods Mikulicz prefers pyloroplasty. (3) Operation may be required for adhesions or abscesses in connection with the ulcer. These are mostly very hard to diagnose, but it must be remembered that in some cases of persistent pain exploratory laparotomy is justified. (4) For hematemesis. Since sudden death is the exception, and many cases recover with medical treatment, the propriety of operation is still doubtful. Hartmann's 12 cases gave eight deaths and four recoveries. The author believes the chief point to be the quantity of blood lost. For violent hemorrhage laparotomy has almost always failed. Sometimes the infiltration of the surrounding tissues has rendered excision of the ulver or ligaturing the bleeding vessel impossible. Often the bleeding comes from a branch of the splenic artery, whose territory is very difficult to reach, and sometimes the ulcer has been too small to be found. For slighter hemorrhages, which become dangerous through repetition, operation may be successful; usually pyloroplasty or more often gastro-enterostomy have been performed in such cases with a view to procuring rest of the stomach, and consequently of the ulcer and its healing. (5) This last consideration has led some to propose gastro-enterostomy for cases of uncomplicated gastric ulcer. The general death-rate for all cases of gastric ulcer is 25 to 30 per cent., for gastro-enterostomy only 16.2 per cent., and therefore the operation has less danger than the disease. Another advantage of not waiting for complications is that the patient is in better health. At any rate cases which do not improve with medical treatment in a reasonable time should be treated surgically.

—Sem. Med., February 2, 1898.

THE SURGICAL TREATMENT OF EXOPHTHALMIC GOITRE.

Anzilotti draws attention to the successful results obtained by surgical interference with the cervical sympathetic in the treatment of exophthalmic goitre. Unilateral or, better still, bilateral excision of the superior or middle cervical ganglion with the intervening cord brought about notable improvement in 14 cases. Diminution of the exophthalmos, goitre, and tachycardia, and in many cases true cure, occurred after this procedure. No trophic disturbance followed, nor organic alteration in the integrity and power of accommodation. Myosis was the most constant after-effect; congestion of the face, lachrymation, and hypersecretion of nasal mucus were also observed. When no result follows the operation it is probably owing to some abnormal anatomical distribution of the cervical sympathetic. On the theory that exophthalmic goitre is due to some poison in the thyroid circulation it is difficult to explain why the vasomotor disturbances should be localized to the upper part of the body alone.

—La Clin. Mod., An. 4, n. 7.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

SPONTANEOUS RUPTURE OF THE UTERUS DURING LABOR.

Poroschin comments on the want of exact knowledge of the cause of this condition. Most cases have been explained, either by the mechanical theory of Bandl or by structural alterations in the uterine wall due to chronic interstitial metritis, fatty degeneration, tuberculosis, etc. There remains a minority of cases to which neither explanation will apply, and in this group Dawdioff has concluded that the accident is generally due to alterations in the elastic connective tissue of the uterus. He finds that in seven cases of spontaneous rupture of the uterus, the elastic fibres were thickened, markedly shortened, and indistinctly outlined, with knob-like thickenings in the bends of the fibres. In the light of these researches, Poroschin gives the following case: A patient, aged 45, 11-para, had a fall on her back two days before the onset of labor. After the fall she felt no fetal movements, neither had she any pain before labor began. Labor pains, at first weak, became stronger and more frequent. After several very strong pains the patient became pale, with the lips cyanotic, and a pulse of 120, hardly felt; at the same time she complained of violent abdominal pain. The membranes were ruptured, and blood-stained amniotic fluid came away. After a few minutes a dead child was born by expression. As there was much hemorrhage the placenta was expressed by Crede's method. Under the treatment the bleeding was arrested, but the patient gradually sank. A necropsy revealed a zig-zag rent, 2 1-2 inches long, in the long axis of the posterior uterine wall; this rent did not involve the serous covering of the uterus. The author explains the rent as due to the sudden bending of the uterus in its long axis over the spinal column when the patient fell, so that the tissues tore on the inner surface of the organ. The bleeding partly loosened the placenta, and led to the death of the fetus. Under the influence of strong pains the edges of the rent were drawn apart, and led to the fatal hemorrhage. Microscopic examination revealed a complete absence of elastic connective tissue in all the sections taken near the rent. To this fact is attributed the readiness with which rupture was produced. The absence of elastic tissue is in turn explained by the age and repeated pregnancies of the patient.

—Cent. f. Gynak., Feb. 19, 1898.

IODIDE OF POTASSIUM IN METRORRHAGIA FROM UTERINE FIBROMA.

P. Boquet reports very good results from the use of iodide of potassium in the treatment of metrorraghia connected with uterine fibroma. Two years ago he was called to a woman, aged 47, with a large uterine fibroma which caused continual metrorrhagia, so that the patient had to spend most of her time in bed. There were evident marks of syphilis on various parts of her body, and she stated that she had been infected by a child whom she had nursed 20 years before; the disease had never been treated. On the hypothesis that the syphilis had something to do with the evolution of the fibroma, Boquet prescribed iodide of potassium, 2 grains a day the first week, this dose being increased by 1 grain weekly during three consecutive weeks, so that in the fourth week the woman was taking 5 grains daily; after this the dose was reduced to 2 grains a day. A fortnight after the beginning of the treatment the bleeding ceased, and soon the syphilitic lesions began to disappear. At a later period the iodide was discontinued, and soon afterwards the bleeding began again; the remedy was again administered, but in smaller doses, and finally the patient was able to remain two, then three, and afterwards six months without taking the iodide and without any return of the metrorrhagia. Encouraged by this result he gave iodide of potassium in the same doses administered in the same way to four other women suffering from fibroma with metrorrhagia, but absolutely free from syphilis. In all these cases the bleeding was stopped, pains ceased, and the size of the tumor was markedly diminished. Boquet suggests that

iodide of potassium exerts a special effect on the genital organs of women, and he thinks that the drug might be tried not only in metrorrhagia connected with uterine fibroma, but also in hemorrhagic metritis.

—Sem. Med., March 2.

THE ABSOLUTE INDICATION FOR CESAREAN SECTION IN THE KYPHOTIC PELVIS.

Guerard discusses the lowest limit of contraction in kyphotic pelves that demands Cesarean section. It has usually been held that when the distance between the ischial tuberosities is as little as 5.5 cm. (2.2 inches) Cesarean section is inevitable. He relates a case in which this diameter was 4.7 cm. only. The circumstances were most favorable for Cesarean section; but neither husband nor wife would consent to it; so there was no alternative but to attempt delivery through the natural passages by sacrifice of the child. This was done successfully, the operation lasting one and a-half hour. The child was fully develop. The author quotes a case related by Brewis, in which a forceps delivery was effected with safety to both mother and child, the distance between the ischial tuberosities being 5.8 cm.; and a case by Torggler from Schauta's clinic, where the same result was obtained with a diameter of 5.5 cm. He concludes that 5.5 cm. is not the lowest limit of the absolute indication for Cesarean section; but that on the whole each case must be judged on its merits.

—Cent. f. Gyn., January 22, 1898.

TREATMENT OF RENAL AFFECTIONS DURING PREGNANCY.

O. Pasteau and J. D. d'Herbecourt report the case of a patient 4 1-2 months pregnant, who suffered from purulent cystitis. She had suffered from leucorrhea for six months. The region of the right kidney was full, dull and very tender; pyelonephritis by direct infection from the bladder was diagnosed. Irrigation of the bladder was resorted to, with improvement of the bladder signs, but the temperature continued high. When a large quantity of urine was evacuated the temperature generally fell for a time. On one occasion artificial distension of the bladder was done for purposes of ureteroscopy, and though the examination of the ureter could not be effected, it was observed that the temperature fell for several hours afterwards, so they determined, when the cystitis, had subsided, to distend the bladder artificially at regular daily intervals for a few moments. This was done, with the result that the temperature remained normal, and the patient was confined naturally at eight and a-half months. The authors explain the results by supposing that the right ureter used to become temporarily blocked by pressure of the gravid uterus. Distension of the bladder raised the uterus and freed the ureter.

—Bull. de la Soc. Obst. et. Gyn. de Paris, February 10, 1898.

DISEASES OF WOMEN AND HYDRONEPHROSIS.

Pfannenstiel removed, in two cases, a hydronephrotic kidney of great size, where the urine had been perfectly healthy, yet at the operation the opposite kidney was found to bear an abscess. In one case the patient had disease of the appendages with strong adhesions; in the second abortion had occurred, and sepsis complicated the already complex condition. Pfannenstiel declares that in future he will not place implicit faith in healthy urine as evidence of a healthy kidney when its fellow is hydronephrotic. He will rather rely on fixing the dropsical kidney to the parietes and draining its cavity. Then he will watch the patient for some time, and, should all go well, remove the cystic kidney, but should there be suspicion as to the soundness of its fellow, he would ultimately close the fistula in the loin.

—Allegemeine med. Centralzeitung, No. 27, 1897.

THE MERCURIAL TREATMENT OF SYPHILIS.

Schwimmer while agreeing that removal of the primary sore can at best palliate and never cure the disease, recommends that the use of mercury should be begun before the onset of secondary symptoms. He states that of 15 cases of severe early syphilis seen by him during the last three years not one had been mercurially treated. He deprecates any reliance being placed on the severity of the primary symptoms as a guide to the subsequent course of the disease, and holds that all cases should undergo the same medicinal treatment. He points out that the discovery of the organisms of the soft sore and of gonorrhea has led to no improvement in the therapeutics of those disorders, and considers that the possibility of a bacterial cause for syphilis should not interfere with its present empirical treatment. With regard to the duration of treatment, with which the question of permissibility of marriage is bound up, Schwimmer quotes two cases in which, after prolonged treatment and freedom from symptoms, patients were allowed to marry; no infection of the wives took place, and each had two healthy children. Nevertheless each developed eight years after infection further syphilitic mischief, in one case affecting the testicle, in the other the periosteum. He concludes that the most prolonged treatment (three years Fournier, five years Neisser) cannot absolutely protect against relapses. As such lengthy treatment is very depressing both physically and morally, he considers two years enough, but does not recommend marriage till the end of the third or fourth year.

—Wien. med. Presse, 1897, No. 44.

LAVAGE IN THE GASTRO-INTESTINAL AFFECTIONS OF SUCKLINGS.

O. Cozzolino describes the operation of washing out the stomach as practised upon infants. It is contraindicated in the case of infants in a state of collapse, and in those suffering from affections of the respiratory organs or from cardiac lesions. The author regards it as the best means of rapidly and certainly cutting short an attack of infantile dyspepsia, and of preventing the concomitant diarrheo and gastro-intestinal catarrh. It is also of use in habitual vomiting when this is due to a catarrhal lesion of the digestive tract, and the child shows a decrease in body weight or an insufficient increase; in cases of prolonged labor, where the infant has swallowed much liquor amnii; and in nervous disturbances, such as convulsions, which are often due to the irritation of noxious products remaining in the alimentary canal. It is also of use in infants who have been given soothing syrups containing opium, and who are suffering from the effects of that drug. Cozzolino regards as rather fanciful Troitzky's suggestion that lavage should be used as a preventive measure when lactation is disturbed by moral affections, etc., in the nurse.

—La Pediatria, January, 1898.

THE SERUM TREATMENT OF DIPHTHERIA.

Botticher, of the Giessen Clinic, concludes a paper on this subject. As regards dose 1500 units were injected at once on admission. It is important, especially in country practice, that a sufficiently large dose should be given at the outset. In the clinic the injection was given into the outer side of the thigh. All other local treatment was omitted except the inhalation from weak salicylic acid solutions. Careful symptomatic treatment was always carried out, especially with the object of maintaining the patient's strength. Among 200 cases injected during the last 17 months there was a mortality of only 8 per cent. The previous mortality was calculated at 44 per cent., but the total difference cannot, of course, be without further consideration, placed exclusively to the credit of the serum treatment. In the cases where tracheotomy was necessary, the mortality has also fallen very considerably. In the diphtheria of infants the good results were very obvious, so that in 65 infants under 2 years only 11,

or 16 per cent., died. Again, tracheotomy has been considerably less often required, the diminution being to the extent of 33 per cent. The earlier the treatment is begun the more favorable the results. Thus, of 185 cases treated within the first four days only 8 died, or 4.3 per cent. If Bose's previous statistics from the same clinic be included, the death rate with this early treatment was only 3.6 per cent., and among the tracheotomised 8.8 per cent. The mortality steadily increased when the treatment was begun on the fifth day and later. In children with previous pulmonary disease like bronchitis the prognosis is especially unfavorable; three such cases were admitted, and died of the respiratory affection some time after they had recovered from the diphtheria. The author has included three cases in his statistics which were almost moribund on admission. If these were left out the total mortality would stand at 6.5 per cent., and that among the tracheotomised at 12.5 per cent. The effect of the serum treatment on the general condition of the patient and on the local lesion was obvious. Even severe laryngeal symptoms yielded under sufficient doses of the serum. The necessity of doing tracheotomy or inturbation on the second half of the first day of the serum treatment, or even on the second day or later, never arose. No ill-effects were observed. In only five children was any rash seen, and this soon disappeared. No painful joint affection, high fever, or unfavorable action on the general condition was noted. Among his other conclusions the author also mentions that the serum treatment protects against a diphtheritic infection of the tracheotomy wound.

—Deut. med. Woch., January 13 and 20th, 1898.

INDICATIONS FOR SULPHUR BATHS.

Partes, of Herkulesbad, gives a detailed analysis of the external and internal therapeutics of sulphur waters, and lays down the following indications for their use: (1) In chronic catarrh of the respiratory organs, dependent more upon venous hyperaemia and unaccompanied by any special complication. (2) Circulatory disturbances in the abdomen and the gastric and intestinal disorders evoked by them. (3) Various exudative processes in joints, muscles and bones, defective callus formation after fractures, chronic periostitis, caries and necrosis, callous ulcers, tendro-vaginitis and deficient mobility after various injuries in which surgical interference is not indicated. (4) Chronic phlebitis, periphlebitis and inflammations of the skin. (5) Various forms of chronic rheumatism, gout and rheumatic and nervous paralyses. (6) Metallic poisoning, especially by lead and mercury and its after-effects. (7) Syphilis, sciatica and neuralgia. To test the value of the sulphur treatment careful histories and states should be taken and the cases followed up long after leaving the baths. The good and bad results must be classified and tabulated for purposes of comparison.

—Wien. med. Presse, 1897, No. 49.

THE BLOOD IN ARTIFICIAL UREMIA.

Monari has carried out a long series of researches on the bacteriological condition of the blood in animals rendered artificially uremic. The animals employed were dogs and rabbits in a condition of perfect health, and the methods of inducing uremia were, first, ligature of the ureters; secondly, excision of the kidneys. In all cases control experiments were made on healthy animals. The presence of micro-organisms in the blood was ascertained in 24 out of 30 cases; in the remaining six they were absent; in 17 only one species of micro-organisms was found; in 23 there were more. It was also found that the same organisms existed in the serous cavities under the same conditions. Eight times the organisms seemed to be identical with the bacterium coli; in seven cases this existed in association with staphylococcus pyogenes albus; once with a streptococcus; while in eight the staphylococcus was found in a pure condition. To account for the

origin of these organisms the author carried out other series of experiments, taking care to exclude any possibility of entrance from the seat of operation. The idea which suggested itself to the writer was that the bactericidal power of the blood is greatly reduced in uremic conditions in a manner similar to the alterations in its corpuscles, density and oxydizing power, questions which have been recently carefully studied. As a result of his experiments he considers that there is a considerable diminution in the bactericidal power of the blood under these conditions. He furthermore investigated results of injecting toxic products of different cultures into the blood, with the result that a fatal termination was precipitated. The general conclusions drawn by the writer are that in uremia certain micro-organisms find their way into the circulation most probably from the intestine, and that owing to the altered condition of the blood they are liable to multiply, and their products are harmful to the economy.

—Lo Sperimentale, 1897.

PROTOZOA IN MULTIPLE CEREBRAL SCLEROSIS.

Jurgens records a case of multiple cerebral sclerosis associated with the presence of bodies which he gives reason for considering protozoa. The patient was an infant, which died about three months after the first onset of symptoms (convulsions, etc.). The head became hydrocephalic, and at the necropsy the dura mater was tense, the ventricles distended and the substance of the cerebrum (white and gray matter) varied in consistency. The heart showed in its substance light gray streaks one-third of an inch long and about one-tenth of that in breadth. In these areas the muscle substance was found on microscopical examination to be absent, the space of each cell being taken up by one or two oval bodies about the size of lymph cells, with strongly refracting nuclei. Other bodies were round, with marked granulation of their contents, but without nuclei. There were also larger cysts with finely granular contents. At the margin of the gray streaks the invasion of the muscular substance by these bodies could be observed. They presented ameboid movements. They had not produced any other obvious affection of the heart, but Jurgens suggests that by their increase they would have led to insufficiency of the cardiac muscle. In the tougher areas of the brain he found marked cell proliferation of recent date. On rubbing up portions of brain substance in a mortar with distilled water enormous numbers of protozoa were found, which appeared to be identical with those found in the muscular substance of the heart. Six rabbits were inoculated with this material, and a similar affection of the heart to that observed in the infant was produced. He believes that the organism was a micro-sporidium.

—Deut. med. Woch., March 10, 1898.

VIRGINIA HOT SPRINGS.

BY JOSEPH R. CLAUSEN, A. M., M. D.

In a recent issue we devoted considerable space to a discussion of the climatic conditions which, together with its healing waters, combine to make the Hot Springs Valley of Virginia a health resort without equal in the known world.

These conditions are so perfectly adapted to the needs of the system debilitated by disease as to appear as though the all-wise Ruler of the universe had located in this favored spot a divinely appointed and regulated sanitarium, where nature is at once physician, nurse, attendant and medicine.

Briefly enumerated these are a uniform temperature, always delightful and never at any time too warm or too cool, a climate wholly exempt from moisture and equally free from violent changes of any character, air that is dry, bracing and invigorating both night and day, an environment that is at once an inspiration and an incentive to proper exercise, which in turn is followed by no other reaction than healthful fatigue, a hearty appetite and the ability to rest perfectly at night.

Add to these surroundings that appeal pleasantly to every sense and faculty—mountains that are high enough and rugged enough to be picturesque, and yet low enough to be verdure-clad to the very summit; beautiful walks and drives interspersed by view points where the scenic beauty is veritably intoxicating, and you have an earthly paradise, for such is the Hot Springs Valley.

But even in the true paradise habitations are necessary, for we are told in Holy Writ that "there are many mansions there." They are equally so in this earthly counterpart.

The Hot Springs Company have provided several which would afford fitting shelter for a kingly retinue, the most notable of which in point of size, beauty and appointments is the palatial hostelrie appropriately named "The Homestead."

It crowns a knoll that overlooks the bath house and springs and is immediately contiguous to them. It is rectangular in shape, with a spacious court in the centre, its situation being such that sunlight and air have full play on each of its fronts, and the court as well. The rooms, which are large, bright and airy, are arranged en suite, and furnished throughout in accordance with the latest and most approved designs. The appointments in the dining room, lobby and other public rooms are the very richest, combining elegance with comfort. The heating arrangements are perfect throughout the house, and entirely under the control of the occupants of the rooms. The appliances for securing a perfect ventilation both in corridors and rooms are specially worthy of mention, insuring as they do pure, fresh air at all times without drafts or fluctuations of temperature. Most, if not all, of the suites are provided with private baths, and fireplaces, adapted to burning wood, while all are brilliantly lighted by electricity. In short, this magnificent structure has been carefully constructed throughout with reference to the most improved sanitary conditions. Last, but by no means least, the hotel is under the management of a most courteous gentleman —Mr. Fred Sterry—who does everything in his power to contribute to the comfort and entertainment of his guests, in which effort he is ably seconded by the genial clerk of the hotel, Mr. Orlander Sterry.

The hotel entrance is but a short distance from the bath house, to which patients unable to walk are conveyed by wheel or Sedan chairs, closed or open.

And right here we want to suggest the only improvement we believe could be made to this otherwise perfect structure, and that in the form of an addition.

We believe it would add greatly to the comfort of such of the guests who are pronounced invalids under treatment at the baths if a covered passageway were constructed between the hotel and bath houses. It could be built at comparatively little cost and would certainly meet with great appreciation.

Now a word about the bath house, which is a central and most important feature of the valley. It is a splendid structure built in the colonial style of architecture from plans made after studying the best European examples, and adapting them to the special conditions and requirements of the springs and grounds. It cost to build $150,000.

The appointments are of the finest order. Well-furnished resting rooms for men and women are provided on each floor. On the upper floor—reached by a grand stairway and a commodious elevator—is a large, comfortable hall, called the Solarium, where patrons can rest and enjoy sun baths, or congregate for social intercourse. Adjoining this is a large gymnasium, supplied with all necessary appliances.

The temperature of the building and its ventilation in every part is readily controlled by the most modern system. It is in perfect command and assures fresh, dry air of uniform temperature in bath rooms and all other parts of the building in all seasons and under all conditions of the weather.

The baths given are of all known kinds and combinations, many of the most effective of these being of an

exclusive character and not to be had elsewhere.

The bathing attendants are among the most experienced and skillful in the country; they, together with every detail of the management, being under the efficient superintendence of that most capable of managers, Mr. Stimson.

Of the treatment in detail we may have something to say later on.

Book Reviews.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. 1898. Sixteenth year. E. B. Treat & Co., 241 West Twenty-third street, New York, Publishers. Price, $3.

This work is now looked forward to as comprising nearly all the advancement in the medical literature of the times. As an annual in concise and practical bearings it has no superior, while its moderate price recommends it to all.

The present issue is improved over those previous by the appearance of an atlas of the Bacteria Pathogenic in Man, by Dr. S. G. Shattock, England, accompanied by practical descriptions of the methods of isolating and examining disease germs which will render detection more easy to the general practitioner.

It would be impossible in our brief space to cite all the additions of the work over that of the year previous. Among the most important is the X-ray progress as a diagnostic and therapeutic agent. We have also to mention the excellent article on Electro-therapeutics, by Dr. Rockwell, of New York.

Progress in other departments of medicine have been enumerated, and some excellent articles written thereon. We are sure most practicing physicians will want a copy.

CLINICAL REPORTS AND NOTES ON UNGUENTINE. Fourth edition. Norwich Pharmacal Co., Publishers, Norwich, N. Y.

This is a monograph on the uses of Unguentine, with a citation of cases from different physicians, who have used the preparation. Very neatly compiled and useful.

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Original

NOTES ON LONDON AND VIENNA HOSPITALS.

BY JOHN E. SOMERS, M. D.,

Cambridge, Mass.

CONCLUSION.

That Vienna is not only a great medical centre, but also a great medical teaching centre for post-graduate work has been settled beyond dispute.

Her reputation as a teaching centre has been acquired by long and able work for a period covering many years, by original work far surpassing that of London, by persistent and by completely organized effort. And, taken as a whole, as a teacher she surpasses any city in the Eastern hemisphere. The work is so organized that when you retire at night you know absolutely what you are to do the next day. Your work for the whole day is laid out for you, and by this method, and by this method only, can you accomplish sufficient work to repay you for your absence from your home, your friends, and your practice. It has been said that a man can accomplish little unless he has first acquired a knowledge of the German language, and that much time is first expended in its acquisition before great benefit can accrue to a worker in that field. This is in part true, but not so true as it was in the days of the past. Of late years an effort has been put forth upon the part of medical teachers of the city to acquire a working knowledge of the English language, and this they have accomplished with a considerable degree of success. It is true that in some lines of work, notably that of diseases of children, a knowledge of German is almost a necessity. The statement is true also in part in relation to the study of internal medicine. Sufficient knowledge of the language is soon acquired

to frequent the post-mortem rooms with advantage to the seeker after knowledge.

In the study of the eye, I am told, the teaching is such that a man is much at a disadvantage without a fair proficiency in the language.

Clinics are taken, as a rule, to fill in time, for a man must depend more for advantageous work upon his regular courses, Kaposi's skin clinic is a favorite with the men, and it is certainly a most valuable place in which to spend one's off hours, for Kaposi is most painstaking and thorough in his work. He furnishes an abundance of material, and it is well and exhaustively handled. The Gaussenbaur and Albert surgical clinics, as well as the clinics of Kraft Ebbing, furnish opportunities not to be neglected, when one has a spare moment during the day.

The work of the post-mortem room is extremely important when your work is so arranged that you can give it the time, for the post-mortems run from five to fifteen a day. Kalisco is a most profound master of his chosen work of pathology. Usually there are two post-mortems being demonstrated at the same time. Here is a sufficiently extensive field to supply the microscope workers all the material needed. The law is such in Vierna that the medical authorities are permitted to perform, if they so desire, regardless of the wishes of the friends, a post-mortem on every patient dying in the hospital.

Chloroform is the anesthetic in universal use. The percentage of deaths in Vienna is said by Caldwell, correspondent for the Journal of the American Medical Association, to be large. I never saw any trouble from its use, although it seems to be administered in the most careless manner. They do not hesitate, for instance, if necessity demands it, to place a patient profoundly under the influence of the anesthetic in the sitting posture.

The nursing in Vienna will not compare with that accomplished by the nurses in our large general hospitals. One reason for this is that the nurses in this country are recruited from a better class than is the case in Vienna. That, it seemed to me, was an extremely serious defect in their hospital work. I was struck by their thoroughness in the methods of teaching. Particularly is this true in internal medicine. I mean from a diagnostic or scientific standpoint. Their treatment counts for little. It is notable that many of their best men believe little in medicinal treatment. Nothnagel is said to be practically a therapeutic nihilist. It seemed to me many times that this doctrine, or rather negation of a doctrine, was carried too far. The classes taking regular courses usually consist of about six members; sometimes the class runs as high as ten, and frequently as low as one or two. It is quite possible to get the whole of any man's course for private instruction. This may be done by one, two or three men. It is always a good plan to have the number in the class as small as possible, even if it costs you more in this manner. It is also a good plan to associate yourself with some medical or surgical worker as assistant. This you must pay for, and such vacancies are all the time occurring. Once having secured such a position hold fast to it, no matter how many months you may remain there, for it not only gives you an experience in a particular line of work, but you are placed in such a position by that association that what you may want in any other line of work can be easily secured. It is well to attach yourself to some dispensary, when possible, for you might have spare time which you would wish to utilize in some given direction.

Professor Zuckerkandel gives an exceptionally fine course on bladder exploration by electric light, showing all the various morbid conditions, and also the catehterization of the male and female ureters with the electric cystoscope. The importance in many cases of being able to secure a specimen of urine from either kidney at will cannot be overestimated. One of the teachers took a class of three, even the most raw recruits, and allowed them, under his supervision, to perform all capital operations. I should fear for the safety of the patient. Hyack is now the authority

on nose and throat and gives fine opportunities to his class.

Krobach's class in diseases of women seemed to be very favorably impressed with his work. The mistake that a large proportion of the men make is in taking two many courses, and thus overcrowding themselves with the result, in many instances, of imperfect and unsatisfactory work. You will frequently see men engaged in hour and hour and a half courses from 7 or 8 A. M. to the same hour in the evening, and often later. Such an overplus of work must necessarily be imperfectly assimilated. A fewer number of courses, more clinics—which are in a sense a rest for the hard student and yet valuable—and more time in the evening to review the day's work, would, to my mind, show better results in a long series of months. The antiseptic and aseptic preparations in surgical cases are on an average very fine. There are, however, some serious objections to the work in this line. One is that it is almost wholly by the wet method. A patient whose abdomen is douched with large quantities of sterilized water preparatory to operating may be aseptic it is true, but when she lies in that water during the whole operation she may also have her life imperiled as a result of that same procedure. Wrapping the body in wet towels, many times coming directly in contact with the bare skin over large areas, is not certainly conducive to the best results. In the lithotomy position the legs and the thighs are wrapped in wet towels wrung out of corrosive solution. In such cases, as a rule, the stockings are not removed. In other words, this work, as performed by the Viennese, is very perfect, but very dangerous, for I believe that permitting a patient in a temperature as a rule not above 70 to remain during a prolonged operation in what is practically a pool of water and enshrouded with wet towels is not at least free from great risk. This, gentlemen, is not an overdrawn picture. No nurses appear during an operation. The assistants are all physicians. Gaussenbauer, who by the way succeeded Bilroth, does excellent work, hampered as he is by an exceedingly small operating room. He is a fine surgeon, but his methods for the production of asepsis are the same as the others.

Hysterectomy as a rule is done by the vaginal route. First, excessive care is used in the cleansing of the vagina. A very fine excelsior, kept in an antiseptic solution, is used in the vagina as a brush, so to speak. The operator takes a handful of it and moves it about, thus scrubbing the whole vaginal wall; then alcohol or ether is used, and lastly a corrosive solution. In a cancer case the paquelin cautery is used freely on the diseased surface to prevent autoinfection. The first or anterior and posterior incisions are also made in the same manner, and for the same reason. He thus reaches the abdominal cavity anteriorly and posteriorly. Up to this time no knife has been used. The anterior cut will vary in distance from three-quarters of an inch to an inch above anterior lip of cervix, the posterior about the same distance. He now ties the arteries on either side and cuts. He then has the uterus on a swivel, so to speak, and he at once proceeds to bring forward and through the anterior opening the fundus of the uterus. At the same time the cervix is pushed inward and backward through the posterior opening. The position of the uterus is, of course, thus reversed, and he at once proceeds to tie and cut from above downward on either side. By this method in many cases the operator has a better control of his work, for he can see much better what he is doing. Braided silk is used. The stump is brought down and anchored in the outward angles of the wound. The ligatures are now all cut down to about a length of two or three inches, and hang down in the vagina. Gauze as drainage is now pushed up to and through the wound. The vagina is then lightly packed with gauze. This completes the operation. This was the method adopted by Professor Latzko, whom I saw operate every day during the winter and part of the past summer. He frequently moved a pus tube, diseased ovary and ectopic pregnancy, by the same

method. In such a case the uterus, after the operation, was pushed back into its normal position, and drainage was established through the posterior opening. Pus tubes are much more common in Vienna than in any American city of the same population. In the large majority of cases where drainage of a pus tube becomes necessary and where the case is a suitable one it is done through the vagina. A large rubber drainage tube is sewed in the wound. In the abdominal section the thing that surprises one is the appalling quantities of silk which they bury in the cavity and that, too, with rarely any untoward results. The instruments and silk are kept in a large pan, in an antiseptic solution, during the whole operation. The abdomen is sewn up with a very fine silk interrupted suture, the knot cut very short. Each layer, beginning with the peritoneum, is sewed with the utmost care and the parts are coated with the most careful precision. It struck me that this part of the work was exceedingly well done. With very little variation this is the plan of all the surgeons in Vienna.

In cases of retrodisplacement in which the uterus is bound down by adhesions, and yet is somewhat movable, the plan of putting them under ether, lifting the uterus forward, tearing up the adhesions of course and after getting the organ into normal position putting in a pessary, has been tried, with about 70 per cent. of failures. Such an operation requires a considerable dexterity. One such case reported in one of the Vienna journals as a success I saw within two weeks of the report in a dispensary—an utter failure. When such cases are properly done and followed by careful and methodical massage quite a proportion will end in success. And speaking of massage in cases of antiflexion, retroflexion, retroversion, retroposition and the dextra and sinistra positions, where we would treat by tampons, in Vienna they treat by massage. When I went there I was not only a skeptic so far as regards the value of treatment by this method is concerned, but determined to remain so; however, after abundant opportunity to watch the same cases for a long period, I am convinced that it has considerable value. Take for instance two cases exactly similar in every respect, and for three months treat the one by tampons and the other by massage. I am firmly of the opinion that the case treated by massage will show much the greater improvement. I am perfectly aware that I am not in accord with the sentiments of this meeting in this position. I am also convinced that in this country we have not sufficiently looked into the merits of this treatment.

Osteo-malacia is much more common there than in our cities. The cases usually come on from 30 to 45, and those that I saw were quite acute. Whether or not this is an indication of a physical retrogression among these people I am not prepared to state. The cervical dilators and divulsors which we use in this country are not used in Europe, and are regarded as beastly appliances, and to the last degree dangerous. They use in dilating the cervix the graduated sound. The assistant keeps the sounds in an antiseptic solution. He hands the operator a small size, which is introduced, and then a larger one, til in some cases a size nearly an inch in diameter is reached. Such a method has its advantages, for you get a perfectly circular dilatation. They have no shoulder, and this in one case that I witnessed proved them in the hands of a most dextrous and careful operator to be even more dangerous than the Goodell or any other in use in the United States. A case was sent to Vienna from another city to one of the professors with the request that he perform an abortion for excessive vomiting. She was about three months pregnant. After introducing a few sounds the large size which he was now introducing seemed to enter with difficulty. Suddenly it entered a long distance. I happened to be assisting, and I thought that uterus seems very large. He put in bullet forceps and pulled down what afterward proved to be omentum and then a knuckle of intestine. He seemed puzzled for an instant, but suddenly realizing that he was

through the fundus he instantly had the abdomen prepared and did an abdominal section. He sewed the fundus into the lower angle of the wound, sewing round and round and, shutting it off from the abdomen, he dressed it as an open wound. Of course he could, under the circumstances, empty the uterus of its contents only imperfectly. The woman made a good recovery. This only proves a long-known fact, that an accident is liable to happen to the most careful operator. I said after it was over: "I am afraid, doctor, this case is an argument in favor of our American dilators." He laughed good-naturedly.

I saw while there an operation for a low-down stenosis of the cervix to take the place of amputation. An isoceles triangle is cut on either side of the cervix, leaving it attached by its apex. This triangular piece is now swung backward and the base, or lower part is sewed in the upper angle of the wound. The description of this operation with a case was printed in one of the Vienna medical journals, and this was one of the first that had been performed. Possibly it may be an advance over amputation.

Appendicitis work in Vienna is not equal to that of the United States. I mean that a much larger proportion of cases go unrecognized. This is indeed strange in a city of diagnosticians.

CHRONIC CUTANEOUS ULCERS AND TREATMENT.

BY S. C. MARTIN, M. D.,

Professor of Skin Diseases in the Barnes Medical College, St. Louis, Mo.

The frequent occurrence of ulcers in middle life and the stubborn resistance they offer to the most skillful treatment furnish sufficient grounds for a careful examination of their pathology. Unless they are the manifestation or accompaniment of specific disease they are almost invariably seated on the front of the lower leg or behind the malleolus—parts most exposed to traumatisms and least capable of resistance to their injurious results. Varix is a leading cause in the production of this class of ulcers. The anatomical character of this region is an auxiliary factor, deprived, as it is, of adipose and cellular tissue, as well as vascularity, so abundantly provided in other parts of the body.

Thus tissues of the lower part of the leg, ankle and foot are composed largely of skin, fascia, tendons and ligaments, bound tightly together with a meagre, and at times obstructed, blood supply, and yet they have a heavier burden to bear than any other members of the body, especially when it is erect and in motion. The return circulation has also gravitation to encounter, which retards the current and favors the development of varix. This condition is often aggravated by improper wearing apparel, such as waist bands, garters, corsets and tight shoes, so when everything is considered it is a puzzle to understand why chronic ulcer of the leg is not more common than we find it to be.

A small ankle and foot are admired, especially in females, but for a heavy body large shin bones and ankles, with feet to correspond, con-

tribute more to bodily vigor, if not to symmetry, than the former, and at the same time the comfort of the individual is materially increased. We can readily understand how weak a man would be with an avoirdupois of 350 pounds bearing down on feet encased in No. 6 shoes, and still the writer has witnessed this very anomaly. Non-specific ulcers of the leg may be divided into the healthy, indolent, irritable, inflammatory, phagedenic and hemorrhagic. The healthy ulcer does not need our special attention, except to emphasize the fact that all the other kinds mentioned must be converted into that form before we can hope to effect a permanent cure.

In our management of ulcers this must be kept constantly in mind. The indolent ulcer, which is a common form, is chronic, deep and excavated with ugly granulations, discharging a thin and bloody pus, with hard, shiny and irregular edges, often presenting the appearance of vulcanized rubber, not only in feel, but in color. The skin is firmly glued to the underlying fascia, and nearly always destitute of cellular tissue.

Deficient vascularity very often accounts for the slow reparative process in this form of ulcer. Its history fortunately is marked by an entire absence of pain. The treament indicated is, first, a thorough cleansing of the ulcer with an antiseptic lotion and dusting its surface with nosophen, which is a 60 per cent. iodine compound, obtained by the action of iodine on solutions of phenol phtalein. The advantage of this preparation over most other of similar constitution is its nontoxic, odorless, dessicative, antiseptic and mildly stimulating properties, which render it serviceable in all forms of cutaneous ulceration. It is an acid, however, which will only exert its antiseptic action by being converted into a soluble form. This is accomplished by its union with the free alkali of the human secretions, lymph and blood. The conditions necessary then for its successful action are a complete removal of crusts and purulent accumulations from the surface of the ulcer. After dusting the ulcer thoroughly a pledget of absorbent cotton should be applied, over which a small compress of nosophen gauze may be placed and kept under the uniform pressure of a properly adjusted flannel bandage. No rubber bandages should be applied, for they are always as uncomfortable as a rubber shoe, when constantly worn. The dressings usually do not require to be renewed oftener than every two or three days. Internal treatment must not be neglected; alteratives, laxatives and tonics are generally indicated. The irritable ulcer is always accompanied with pain. It presents a grayish surface, irregular, but non-elevated edges, discharging purulent matter, tinged with blood. For this form of ulcer the patient should be placed on his back with the leg elevated. We should first apply nitrate of silver solution in the strength of three or four grains to the ounce of water, with the same quantity of tannic acid added on lint; subsequently the nosophen powder may be dusted over the ulcer in thin layers, after having added to it an equal quantity of acetanilid to allay painful accompaniments. The cotton nosophen gauze and flannel roller may now be applied, as in the indolent form of ulcers. In some cases, where the pain and irritation persist, an opium lotion may be temporarily resorted to. Constitutional treatment must be governed by the requirements of the case, and is usually symptomatic. Inflamed ulcer is greatly the outcome of the foregoing forms, induced by overstimulation or mismanagement. It is marked by heat, redness and swelling, with an offensive, purulent and bloody discharge. The treatment is rest of the limb in an elevated position, antiseptic, cooling and evaporating lotions. The inflammation must be reduced before applying the nosophen, dressing or bandage, as in the other mentioned forms.

In hemorrhagic ulcers, which are generally a variety of the irritable ulcer, nosophen is particularly efficient on account of its hemostatic and soothing properties. This form of ulcer occurs mostly in females who are troubled with irregularities of menstruation. The proper treat-

ment in such cases is to correct as far as possible the conditions which occasion or aggravate the ulcer, and then pursue the treatment above outlined.

When there is a varicose complication our object should be to relieve the dilated vessels from blood pressure. To this end we should resort to the uniform pressure of the flannel bandage. In this condition the blood moves slowly, more oxygen is given off the tissues, the skin is dark and cold. The flannel bandage furnishes the soft, equable pressure so much needed and restores warmth with comfort of the parts. The skin, where the varicose condition continues long, becomes browny and pigmented, with a tendency to degeneration. By judicious pressure the normal circulation can in a measure be restored and such results prevented.

The treatment of ulcers cannot be rigidly fixed, but may be outlined and modified according to requirements of pathological conditions.

—3408 Franklin ave.

Editorial

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SEGREGATION OR CONCENTRATION.

The old Empire State, New York, always well to the front in any scheme which is progressive, has lately adopted a measure which we feel confident will commend itself to all who have given the subject of eleemosynary institutions a careful consideration.

It is the thin end of the wedge which we trust will in the near future introduce a wide spread in necessary reform.

We gather from a valued exchange the following:

DEPENDENT AND HOMELESS CHILDREN AND THE NEW YORK STATE PLACING OUT BILL.

Opinions have considerably altered in regard to the desirability of orphan asylums and institutions as a means of saving homeless children. The great objection urged against them is the disadvantages of massing children together in large numbers under artificial conditions. The substitute for orphan asylums adopted in many States of this country is what is termed the placing-out system, that is, finding a dependent child a home in some respectable family. This system, when properly carried out, is without doubt in every respect a great improvement on the

old one, but unfortunately in this and other States it has been so abused as almost to become a public scandal.

The placing-out bill for New York State should in its new form commend itself to all classes, and it is to be sincerely hoped that it may become law. The first bill drawn up by the State Board of Charities met with opposition on the part of many of the philanthropic and charitable organizations in the State, chiefly on the grounds that it delegated too great powers to the State Board of Charities. As a consequence of this opposition a conference between the various charitable organizations interested in the matter was held, and the present bill, in a completely new form, was drafted, and appears to be altogether satisfactory. In the first place the bill referred to defines the term "destitute child" as meaning an abandoned orphan, or a destitute minor under the age of 16, who is an inmate of a public or private charitable institution, or is maintained by or dependent upon public or organized charity. Placing out is defined as the placing of that child in a family other than that of a relative within the second degree, for the purpose of providing a home for such a child. No person can receive such a child, nor can a corporation other than a charitable or philanthropic one place out such a child after this act becomes law, unless a license shall have been given by the State Board of Charities. No child can be placed in a family outside the State by a local officer charged with the relief of the poor. To the State Board of Charities is given the power to issue licenses to persons or corporations whom they deem proper to take care of children—no license to be granted to any person until six months after the application has been made. Such license may be revoked by the Board, subject to a right of appeal on the part of the licensee. The State Board of Charities in fact acts in loco parentis and appoints inspectors, whose duty it is to visit those families or corporations holding licenses. Attention is also paid to the religion of the child, as in many to the religion of the child, as in as many cases as possible the child is placed with persons holding the same religious views as did the child's parents.

—Medical Record, April 9, 1898.

Well done, for the way to amend our present acts of hospital and orphan asylum consolidation is to end them.

It would be an enormous gain to civilization and humanity if every orphan asylum, hospital and old people's retreat were leveled to the ground.

Let the State provide for the needy, but in their own or the homes of others glad to receive them. It could probably be done for much less than it now costs. Let those who are now agitating for hospital reform demonstrate that there is no use for them, except for foreigners and pestilential diseases; that the most sanitary and salutary influences can only be found in the atmosphere of home, and for those without homes let them be farmed out to those who will be glad to accept the city or State's stipend for their care.

It has been said that the "workhouse" was the greatest curse of Ireland, as it degraded and demoralized the people.

The modern hospital is doing the same thing for us in America.

In large metropolitan cities there may be some excuse for them, but in the smaller, and in large towns, there is none whatever.

The most of these concerns are founded under the auspices of religion or philanthropy, but when the mask falls it is clear to anyone that there is neither in them.

But it may be said that the teaching of medicine without them would be impossible. Another fallacy, as everybody knows that modern clinical methods are in no manner to be regarded as valuable as the old-time preceptor, who brought his student into immediate contact with his patient, and kept him under his immediate instruction. And, further, the time is near at hand when public officials, disgusted with the unsightly scramble of medical colleges for clinical material, will sternly forbid entrance of students to hospital wards. In denominational hospitals they are now excluded. T. H. M.

TAMMANY AND THE DOCTORS.

The New York physicians are indulging in strong hopes that under the new regime established by Tammany many wrongs will be righted, especially in the Department of Public Charities. It will be remembered that in one fell swoop many able men who had official connection with the hospitals of the metropolis were expelled from their positions without warning or assignable cause. Reorganization demanded the overthrow of some of the best physicians in the city, but who did not happen to belong to the inner circle, and reform accomplished what appeared to be an overwhelming victory. Through successive administrations reform still held sway, and the "inner circle" still controlled the destiny of the attending physician. The manifest wrong perpetrated by such action counted as nothing; the rank injustice which ousted from prominent positions men of brilliant accomplishments in order that novices and favorites might take their places received no consideration. A certain object was to be achieved, and the victory was won despite the protests of the profession.

But, to use the classic phrase of an eminent politician, "All things come to him who waits, and who hustles while he is waiting." The profession has not been idle, and during the last campaign its members buckled on their armor and helped to change the condition of affairs.

Is it too much to expect that the physicians of this great city will now come into their own? That men who are striving to forge ahead in professional work, but who have hitherto been hampered by the difficulties placed in their path by the "reformers," will find ample opportunity to advance themselves? That the "inner circle," which has subordinated the interests of the profession in order to advance their own private affairs and institutions will be brought up with a sharp turn and made to realize that another day has dawned?

No; it is not expecting too much, and the realization of all the possibilities contained in these interrogations will soon be accomplished, or else we do not read the signs of the times aright. Nepotism has received its death blow.

DISINFECTION OF ENTIRE BUILDINGS BY MEANS OF SCHERING'S FORMALIN DISINFECTOR.

On Saturday, February 12, 1898, the Schering factory, of Berlin, effected a disinfection upon the very largest scale at Potsdam. The Schering people had been asked by the Royal Buildings Commissioner Allihn to disinfect an entire hospital, which it was designed to transform into a Royal Military Orphanage.

The building was two stories high and about 70 meters (230 feet) in length. Each floor was divided into two parts by a longitudinal hall. There were two large separate staircase buildings and about 50 rooms, amongst which were several dormitories about 25 meters in length (82 feet). The house had two fronts, both of which were provided with many windows.

The disinfection of the rooms one by one would have taken a great deal of time. It was therefore decided to disinfect the entire building at once. The cubic contents of the whole were about 6000 cubic meters (211,983 cubic feet).

The main doors were closed and all their orifices sealed; the stove openings were shut up. The windows, though of old model, closed tightly and did not require sealing. All the inside doors were opened, so as to make one room of the building. Sixty-two Formalin Disinfectors were then placed in the rooms and halls of both floors, the apparatus itself being in each case placed next to the spirit lamp. Two workmen on each floor placed the apparatuses in position and set them going. At a given signal each workman filled his disinfectors with alcohol and Formalin pastils. In all there was used 12 1-2 kilo (27 1-2 pounds) of Formalin pastils. At a second signal all the lamps were lighted, and at a third one all the receivers filled with pastils were placed upon the lamps.

Arranged in this manner, the entire manipulation occupied 25 minutes. The workmen left the building through a door left open for that purpose, without being in any way incommoded by the Formalin odor. This door was then sealed. The workmen then left.

Within two hours, as could be seen from the outside of the building, the lamps had all burnt out. As the building was not needed immediately the vapors were allowed to act for 48 hours. When the building was entered at the end of this time a very intense Formalin odor was perceptible in all parts of it.

This entire process of disinfection was so extremely simple that none of the other methods can, in our opinion, compete with it.

Disinfection of the entire building at once could hardly have been effected with the Trillat apparatus; it would have been much more expensive and troublesome, would have taken much more time, and would have required a far greater number of assistants.

The Trillat apparatus holds three liters (three and one-sixth quarts) of Formalin, producing at the most 1200 grams (two and two-thirds pounds) of formaldehyde; so that 10 of these very expensive apparatuses, which require constant supervision, would have been needed. Each single apparatus would have had to have a separate entrance into the building for its tube.

Apart, however, from the whole complicated mechanism and the attention and care required for the use of the Trillat apparatus, and also from the much larger cost entailed by its use, it could not possibly effect such a thorough distribution of the formaldehyde vapors and so far-reaching a disinfection. The formaldehyde would only reach the interior of the building from one or more outside points, whilst the Schering apparatuses were distributed throughout the entire building. It is very evident that the formaldehyde developing from 62 centers scattered throughout the space to be disinfected is much more thoroughly and evenly distributed than when it comes from one or a few points. Besides this purely mechanical advantage, the construction of Schering's apparatus permits the formaldehyde to be much better distributed than can ever be the case with the Trillat apparatus. The formaldehyde vapors arise from Schering's lamps in a superheated state, in real gaseous form. From the Trillat apparatus they issue fairly well cooled, in the shape of a cloud. This is readily understood from the fact that they are developed under pressure, and expand and cool off when they issue from the apparatus. Their temperature, about 10 centimeters (four inches), from their point of exit from the apparatus is under 40 C. (104 degrees F.), so that the hand can be held in them without discomfort. The entire Trillat apparatus is therefore badly constructed. That the formaldehyde does not issue from it in gaseous form is shown by the fact that the ground in front of the opening is always wet. Hence in large areas there cannot possibly be a thorough circulation of the formaldehyde vapors. In smaller areas this is not so important; but for such rooms—of say, 100 cubic meters ,3531 cubic feet) area—the Trillat method is much too troublesome.

The test objects (staphylococci) placed in the building during the disinfection were, of course, found entirely sterile after it was completed.

ANNOUNCEMENT.

It is with pleasure we announce that Dr. Louis Fischer, professor of Pediatrics in the New York School of Clinical Medicine, will edit a department in this journal on diseases of children.

The third annual meeting of the Western Opthalmologic and Otolaryngologic Association was held in Chicago, April 7 and 8, 1898. The address of welcome was made by Dr. F. Honrotin, president of the Chicago Medical Society, who, in a felicitous speech extended to the members the hospitalities of the city of Chicago. Dr. A. Alt, of St. Louis, Missouri, responded for the Association. The annual address was then read by the president, Dr. B. E. Fryer, of Kansas City, Mo. After the usual routine business had been concluded a scientific communication was then read by Dr. Herman Knapp, of New York City.

The ophthalmologic and otolaryngologic sections each held five separate and two joint sessions, many articles of interest being read and discussed. The last joint session was occupied with the exhibition of clinical cases.

The committee of arrangements, of which Dr. J. E. Colburn, of Chicago, was chairman, was unremitting in its attention to the guests, and nothing was spared that would contribute to the entertainment of the visitors. Thursday evening the members were invited to the hall of the Chicago Athletic Club, where a special programme had been arranged for the entertainment of the members.

The following officers were elected for the ensuing year: President, Dr. J. Elliott Colburn, of Chicago; first vice president, Dr. W. Scheppegrell, of New Orleans; second vice president, Dr. Casey A. Wood, of Chicago; third vice president, Dr. H. Gifford, of Omaha, Neb.; treasurer, Dr. W. L. Dayton, of Lincoln, Neb.; secretary, D. F. M. Rumbold, of St. Louis, Mo.

New Orleans was unanimously selected for the next meeting, which will take place just before the Mardi Gras of 1899, thus allowing the members to conclude their scientific session with the gayeties of the carnival season.

MEETING OF AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.

The fifth annual meeting of the American Medical Publishers' Association will be held in Denver, on Monday, June 6, 1898 (the day preceding the meeting of the American Medical Association). Editors and publishers, as well as everyone interested in medical journalism, cordially invited to attend and participate in the deliberations. Several very excellent papers are already assured, but more are desired. In order to secure a place on the programme contributors should send titles of their papers at once to the secretary, Charles Wood Fassett, St. Joseph, Mo.

Clinical Medicine.

In charge of Dr. J. J. Morrissey.

THE SPREAD OF PHTHISIS.

Fligge (Deut. Med. Woch.) mentions that the chief point in the prevention of phthisis has of recent times centered in the prevention of the drying of the sputum. There is, however, no evidence to show that the healthy individual acquires phthisis through breathing dry sputum dust. Cornet showed that the dust in rooms inhabited by phthisical patients could induce tuberculosis when inoculated into the peritoneal cavity of guinea pigs, but it is not proved that this bacillus-containing dust really exists as atmospheric dust. Nearly all experiments in which it has been attempted to induce tuberculosis in animals by the inhalation of dry sputum dust have failed. It has only succeeded when there has been some lesion of the respiratory tract. On the other hand, the disease can be produced with certainty by making animals inhale finely divided drops of infected fluid sputum. Whether the tubercle bacillus can be carried along in a living state in dust in weak atmospheric currents is doubtful. It has been shown in the author's laboratory that tubercle bacilli in the finest dust cannot be carried along as readily as other microbes, staphylococcus, etc. The danger then of infection by atmospheric dust obtained from dry sputum is not only not proved, but is improbable. The author draws attention to the infection being conveyed by finely divided fluid sputum, as produced by coughing. These minute particles can be carried along in a weak atmospheric current. The patient with phthisis may contaminate the surrounding air with minute particles of sputum containing tubercle bacilli. The production of these fine particles of moist sputum must depend upon the frequency and character of the cough and the abundance of the sputum and mouth secretions. Those who cough violently and frequently with open mouth most often infect the surrounding atmosphere. Those in the constant presence of phthisical patients run the most risk. The author thinks that the danger of infection by the finely divided sputum is not as great as it might appear to be, and that it can presumably be avoided by attention to a few simple details. This is in keeping with experiments carried on in the author's laboratory. The mouth secretions of the phthisical should be examined, as these lend themselves better to fine division than the sputum itself. If these views are correct much the greater danger lies in the existence in the atmosphere of a more fleeting contagion than would be the case with infected dry dust.

(This is a most important communication and weighty with valuable theories concerning the communicability of tuberculosis. We say "theories" advisedly, for until these statements can be substantiated by a large number of observers working along the same lines we must withhold our opinion concerning their truth or falsity. On the other hand, it is well for us to know that it is only by the subcutaneous injection of infected dust that the susceptibility of guinea pigs declares itself, and not by direct contact with the various portions of the respiratory tract.

Heretofore it has been held that inhalation of the tuberculous dust was sufficient to produce tuberculosis, but the above described experiments would seem to revolutionize our ideas on this important subject, that it is not the infected dust, but

the finely divided sputa, and moreover the territorial range of the latter seems to be limited.

It is along these lines of experimental investigation that we can best arrive at the solution of the problems offered in the propagation of phthisis. It is a field which offers an inexhaustible territory to the patience and skill of the scientist, for there is no disease so widespread in its ravages, and the discoverer of its cure will be placed among the benefactors of humanity.) J. J. M.

ERGOT AND QUININE.

In the practice of a limited number of obstetricians the use of quinine as an oxytocic has largely superseded the administration of ergot, and yet it is a remarkable fact that very many practitioners still deny its beneficial activity. Given in doses of five grains for two or three successive doses, where the uterus seems to require additional stimulation, it acts readily and efficiently. And even in those, or larger doses, it does not seem to produce cinchonism, all of its effect apparently being concentrated in strengthening the uterine contractions. It is more in the quality of its power than in the quantity that its best effects are produced, as it permits of the natural periods of relaxation. Unlike ergot, quinine does not cause tetanic contractions and may be given at any stage of labor, while the true sphere of ergot lies in being administered after the second stage has been completed. Quinine is particularly applicable in primiparae, where the tedious and exhausting first period of labor has completely used up the mother's power of further expulsion. Here it can be given freely, and it appears to give tone to the weakened uterine muscle, frequently obviating the use of the forceps.

In cases of abortion, where there is bleeding, no pain, os uteri closed, ergot in small doses may be administered, its hemostatic action generally accomplishing the desired result. But when actual labor has begun quinine will be found more serviceable.

During pregnancy quinine will not produce abortion unless the uterine muscle has begun to contract. The latter appears to be an indispensable condition for the favorable action of the former. It is not safe to advise quinine where the first symptoms of abortion have declared themselves.

Quinine may be then used safely (1) where labor has begun and the pains are exhausting, but without force. (2) It is especially advantageous in primiparae, where this condition is particularly well marked. (3) It appears to exercise a tonic effect upon the uterine muscle, imparting strength and force to its contractions. Ergot, on the other hand, is useful (1) as indicated above in cases of threatened abortion, (2) in postpartum hemorrhage, and (3) in uterine subinvolution. J. J. M.

BACK NUMBERS.

Carron oil, iodoform and picric acid are back numbers in the treatment of burns. Carron oil possesses no antiseptic qualities whatever, while iodoform, owing to its strong and toxic effects and odor, is very objectionable to the patient, and in some cases dangerous to use.

In regard to treating burns with picric acid, its disadvantages are: Staining the hands and bed clothes and its utter uselessness in allaying the inflammation or assisting in granulation. Then again, Waither, in the Gazette, Hebon de Medicine et de Chirurgical, reports a case of two children he treated for burns with compresses of picric acid, in in which there was much pain, severe smarting and vomiting. A second application was made with same result, and this mode of dressing had to be discontinued.

In Unguentine we have a thoroughly antiseptic, healing and restorative dressing, non-toxic, inodorous and clean. It readily subdues inflammation and assists in granulation and was used in the hospital barracks at Key West, Fla., where the wounded soldiers of the Maine were sent for treatment from Havana.

PNEUMONIC ENDOCARDITIS OF THE PULMONARY VALVES.

Kerschensteiner concludes a study of this subject after relating an interesting case. He first refers to the researches of Netter, Weichselbaum and others. He says that pneumonic endocarditis is not very infrequent. A malignant endocarditis arising in connection with pneumonia may be caused by (1) the pneumococcus, and (2) the strepto and staphylococcus. These different forms of the disease are differentiated by the course, temperature, curve and complications. The couse of a true pneumonic endocarditis is much shorter than that of a streptococcus endocarditis. The disease in the author's case only arose a few days before death. Here there were no characteristic symptoms of the endocarditis, but a systolic murmur was heard on the fourteenth day of the disease, the crisis having taken place on the tenth. This murmur was heard the day after the diagnosis of meningitis was made, but a general infection with the pneumococcus was believed to exist on the twelfth day of the pneumonia. When malignant endocarditis is due to the pneumococcus the fever is usually continuous, whereas in the other forms it is intermittent. Infarcts and metastatic abscesses are very rare in pneumonic endocarditis, but are usually found in the endocarditis produced by the pyogenic microbes. Pneumonic endocarditis is more easily recognized when there is no meningitis, and when it is consecutive to an acute pneumonia. It was a striking fact that there should have been such marked changes in the pulmonary valves in this case, and yet so little evidence of it during life. The bacteriological examination of the blood was negative in this case. Malignant endocarditis is now looked upon as a localisation of a general microbic infection. Here the endocarditis was an expression of the pneumococcus infection, which may be called a pneumococcemia. If, as in the case of the gonococus, the invasion of the microbe occurs by a definite channel, the nature of the ensuing endocarditis may be readily recognized. Perhaps in the future it will be possible to differentiate the various clinical pictures produced by the different microbes in malignant endocarditis. Pneumonia, endocarditis and meningitis present a characteristic trio of lesions in pneumococcemia.

—Munch. med. Woch., August 3, 1897.

For family or medicinal use there is none better than the Jesse Moore whisky, either Bourbon or Rye. In cases or bulk. Jesse Moore, Hunt Co., Louisville, Ky., or L. Heineman, agent, Jamestown, N. Y.

PEDIATRICS.

In Charge of DR. L. FISCHER.

ENURESIS AND ADENOID VEGETATIONS.

BY LOUIS FISCHER, M. D.

One of the most disagreeable affections of infancy and childhood is certainly bed-wetting. This is a very frequent occurrence in both sexes. To properly determine the course of treatment we wish to pursue it is absolutely necessary to find the cause and if possible seek to remove it. It is therefore advisable to examine the urine and see if any abnormality exists; for example, diabetes millitus or the possibility of a chronic nephritis must not be forgotten. Then the atonic conditions dependent on the weak functionating sphincter vesicae, or the imperfect action of the detrusor urinae. Where the former-mentioned condition, "atonic, or the weakness (sphincter vesicae) exists there is usually also enuresis diurna. If a constant enuresis exists, as well by day as by night, the necessity of having the child properly examined for the existence of stone (lithiasis vesicalis) must not be overlooked. We frequently find this stony following an attack of typhoid. In fact, I have where the urine had involuntarily escaped through the perineum for 23 years. The section of the cicatricial urethra was completely dissected away and the healthy ends united. Recovery was primary and complete.

The author above quoted ascribes the paralysis of the left limb to injury of the great sciatic nerve, but in my opinion this was an error. My experience has been that in these cases it is quite invariably reflex, as also many of those troublesome psychic disturbances evidently are. It is well known that of late years "septic infection" is held responsible for it, but we cannot well have septic infection without sepsis. And in many of the most marked states of nerve derangement attending or following catheterization there is no fever and no suppurative lesion.

On the contrary, in many who suf-

fer from the most pronounced mental derangement while a catheter is engaged in the urethral canal, at once on its removal the mind clears up and consciousness is early regained. In the class of cases under consideration a few things are necessary to observe, that, at least, we inflict no harm in trying to give relief. First, let us see to it that everything employed is aseptic; secondly, let our manipulations be gentle, and lastly, never employ pulmonary anesthetics.

Local cocainization is permissible, but caution must be observed that we do not so annul sensation that undue force is employed without the patient's knowledge. The practitioner assumes a grave responsibility in the management of these cases, as the results of their treatment depend quite entirely on his discretion, skill and judgment.

A NEW CLINICAL SYMPTOM OF SCARLET FEVER.

Mr. Meyers reports (La Presse Medical) March 5 a series of cases that came under his observation at the Hopital de la Porte D'Aubervilliers during 1897. He observed a slight paralysis of the upper extremeties, with frequently only numbness of the hands. At times instead of a numness only a pricking sensation was reported, which was located in the palmar surfaces of the ends of the fingers, or in the palm of the hand. It was rare in the feet, but if present was found at the same time as in the hands. It usually appears at the time when the eruption first appears, quite frequently with it and rarely before it. The duration of this sensation is variable, sometimes lasting only a few minutes and other times for a long time. In cases of abortive scarlatina this symptom may aid in the diagnosis. It may also aid in the diagnosis of the abortive form of scarlatina and also be of use in the retrospective diagnosis in patients who do not have the eruption, in whom desquamation is fugacious, or very late. The author states that he has never met this symptom in other eruptive diseases. It is absent in diphtheria and in drug eruptions (erythema) notably in mercurial eruptions. L. F.

DOSAGE OF DIPHTHERIA ANTITOXINE.

Edwin Rosenthal, M. D., of Philadelphia (Philadelphia Medical Journal, April 9, 1898) reviews the dosage of diphtheria antitoxine. This author's views are based on an extensive experience, especially with the most malignant cases seen by him in consultation practice. He is well pleased with Mulford's Antitoxine, and advises the following doses: He believes that the first dose should not be as large as the second and advises that the system be given time to gradually acclimatize itself to the tolerance of this new serum. He says: "I cannot conceive that the use of enormously large doses at one time is in any way superior to the method of gradually increasing the dosage. Above the age of 2 years the initial dose should be 2000 units, and who exhibit any degree of malignancy or laryngeal or nasal or lymphatic involvement. After this first dose we should gradually increase the dose per day, as 2000, then 3000, then 4000, and so on. It is in the severe forms that we find this rational method of such good service, as the wirter can testify. L. F.

ADVICE ON TREATMENT OF INFANTS.

Hugo Neuman, M. D., of Berlin, in a recent paper, read before the Berlin Medical Society, gives a few valuable points which are worth repeating. He chooses to call his title "Excessive Treatment of Babies."

1. I do not bathe the infant for the first time until the umbilical wound has healed. Remember that the vernix caseosa is aseptic.

2. Avoid too much rubbing and scrubbing of the infant's mouth.

3. Refrain from scarifying the gums with the idea that dentition is a pathological process. L. F.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

TRAUMATIC RUPTURE OF THE URETHRA.

M. Loumeau (Malad. Des Voies Urin) records an interesting case of rupture of the urethra from a fall astride a ladder. The author notes that since Guyon's plan of treatment has been established it is generally understood now that in all these cases the perineum must be freely opened to decide how to use the forceps, and the ends brought into place and retained by sutures.

His patient was a young man, who sustained injury at 8 in the morning. Great pain immediately followed, with vesical tenesmus and urinary leakage into the cellular tissues of the urethra. A physician was called, when ineffectual efforts were made to pass a catheter. At 4 the same afternoon M. Loumeau was called.

Recognizing the grave character of the condition he advised an immediate operation. At 6 in the evening the perineum was divided. It was now discovered that there was a complete laceration through the urethra, the divided ends being separated about five millimeters.

These were seized and brought into apposition and sutured with catgut. The surface wound was then completely closed.

After this a No. 18 Nelaton catheter was introduced and secured into position.

There was but little reaction. On the fourth day the catheter was spontaneously expelled. On the fifth day after catheterization some blood issued from the urethra. This was followed by urinary fever and a separation of the edges of the perineal incision.

Now a catheter was fixed in position, some of the urine in the meantime escaping from the perineum, but in one month the secondary union was perfect.

About three weeks after operation he was seized with paralysis of the left limb. After three months he had entirely recovered.

The author believed that the paralysis of the limb had succeeded in consequence of an injury to the sciatic nerve, sustained at the time the urethra was crushed. The patient ultimately completely recovered full use of the urethra without stricture.

Note.—The above interesting case belongs to a highly important class of urethral lesions. Some years ago the writer called attention to them in an essay in the Annals of Surgery, and showed that there were essentially two classes of cases of urethral rupture from violence, viz., the incomplete and complete. This distinction is important to make for the reason that in the former the perineal incision is not necessary, while in the latter it is invariably imperative. When one has sustained a severe contusion or laceration of the urethra, and a catheter can be gently passed through, the rupture is in-

complete and the urethral impediment will yield to simple, tentative remedies.

On the contrary, when rupture is complete no catheter can be passed, the urine is projected into the loose perineal and scrotal connective tissues, urinary fever sets in early, the constitutional disturbances are grave, gangrene and sloughing follow. The continuity of the urethra has been destroyed and thereafter, in the event of recovery, urination is entirely through a perineal fistula. The leakage is almost constant, and a most distressing state follows. In one instance the writer treated a case frequently found this condition to exist after a severe attack of diphtheria, or even following severe forms of any infectious disease.

This has been frequently reported where myelitis has existed. Other causes—congenital phimosis, preputial adhesions, stricture of the urethra, irritations from worms (ascarides), fissures of the anus, vulvitis and also onanism—must not be forgotten. A concentrated urine loaded with phosphates and lithates can easily cause irritation and eventually bring on this enuresis. Adenoid vegetations have been accused of causing this trouble. It is interesting to note that Henoch does not credit all the reported cases of enuresis being brought on by reflex irritation of adenoid vegetations. It is our good fortune to have watched over 100 cases in the large children's service at the German Poliklinik and to have rarely seen a child that was brought for the relief of a troublesome enuresis that did not have the post-nasal spaces filled with adenoids.

I have seen several cases recently that have been suddenly cured after the adenoids have been removed, so that to my mind some causal relation does exist. It is of the utmost importance to locate where feasible the cause of this neurosis, and if it is due to organic lesion to try and eliminate it at once. The treatment of ascarides or oxyuris need only to be referred to, and where phimosis exists such treatment must be given which will remove this abnormality. Tumors of the bladder can only be diagnosticated by proper cystoscopic examination and should be made if other symptoms point to the existence of this lesion. The surgical treatment must then be considered. The treatment is very simple:

First. If one of the above-mentioned conditions exist seek to remove it. Secondly. Modify the child's health by giving good supporting diet—milk, beef broths, highly nutritious cereals, eggs and fruit. Stop all alcoholics; in fact, I prefer not even coffee and tea, and insist on giving the heaviest meal at midday and the lightest meal at night. Have the child's bladder emptied before retiring, and see to it that the child does not receive liquids before retiring. Have the foot of the bed elevated if possible. It is a good plan to have a large knot tied over the child's back by taking a large bed sheet and tying it around the child's waist so that the knot is made in about the centre of the back. This will annoy the child when suddenly awaking and will do some good toward having the child sleep on either side. Some authors advise having a stout brush with bristles tied over the back so that the bristles will awaken the child if it happens to accidentally lie on the back. These mechanical contrivances have seldom in my opinion done any good. My success has certainly been by giving strychnia, a child 1 year old receiving 1-100 of a grain, t. i. d. In conjunction with strychnine I invariably advise electricity. In boys I apply one electrode to the perineum, the other into the rectum. My preference is for a mild galvanic current. In girls it is easy to introduce the one pole into the rectum and the other (small electrode) into the vagina, without hurting the hymen. I have very rarely seen the case that could not be modified in several applications of the galvanic current in intervals of three or four days, each application lasting about two to five minutes.

CONTUSION OF CAROTID ARTERIES.

Rivit reports a similar case to that already recorded by Verneuil, of accidental cantusion of the carotid ar-

teries ending fatally. The patient was knocked down on the railway and the upper right part of the thorax caught between the wheel and the rail. The patient did not lose consciousness, but when in the hospital was able to describe the accident. The right clavicle was fractured, and there was an enormous sanguinous effusion in the same locality. The upper four or five ribs were fractured in the dorsal region. The left clavicle was intact, and a simple ecchymosis extended up the neck. In turning over on his back the patient suddenly became paralyzed, speech was lost, the mouth drawn to one side, tongue could not be protruded, the right arm and leg were paralyzed. Tactile and thermic sensibility retained, no ptosis. After several minutes no lesion indicating intracranial hemorrhage, but After several minutes syncope supervened. There was no lesion indicating intracranial hemorrhage, but no pulsation was evident in the left carotid, facial or temporal arteries. Thrombosis of the left carotid artery was diagnosed. The next day sensation was lost on the paralyzed side. He could swallow, but passed water involuntarily. Death ensued the same morning. The necropsy revealed a small circular zone of ecchymosis surrounding the common carotid 2 cm. below the left clavicle. Corresponding with this was found rupture of the middle and inner coats of the vessel, the torn parts forming a valve, on the rough surface of which was a clot adherent and extending as far as the external carotid. The brain showed no visible alteration. There was no thrombus or embolism. In cases presenting apparent symptoms of cerebral lesions the lateral regions of the neck should be explored, as injury to the carotid may give rise to all the ordinary signs.

—Sem. Med., March 9, 1898.

Jesse Moore Old Kentucky Bourbon or Rye Whisky is a standard of excellence; pure, old and ripe. Send for samples and prices. Jesse Moore, Hunt Co., Louisville, Ky.

A HINT ON THE TREATMENT OF RENAL CALCULI.

There is a certain class of renal calculi in which much benefit is derived from the internal administration of antilithic remedies. These are cases where the calculus has not reached any considerable size and is composed for the most part of uric acid. The demand for a remedy that will disintegrate concretions of uric acid in the kidney and facilitate their elimination in the urine has, however, been only imperfectly realized by the alkalies which have been chiefly employed for this purpose. While alkalies, especially lithium salts, undoubtedly exert a solvent action upon uric acid, this is not sufficiently marked to render it likely that they will dissolve stone in the kidney. A much more promising remedy seems to be lycetol, which has a specific solvent action upon uric acid, as shown in the decided increase in the quantity of this substance excreted in the urine after its administration. Lycetol is also well adapted for prolonged use in renal lithiasis, since it is extremely pleasant to take and does not disturb the stomach. Dr. James H. Taylor, of Indianapolis, writes that in cases of renal calculi he has employed this preparation with very gratifying results, and others are equally positive in their statements regarding its value in all forms of the uric acid diathesis.

WHAT OPERATION CAN DO FOR CANCER OF THE TONGUE.

Butlin (British Medical Journal, February 26, 1898) reports a series of 102 cases of cancer of the tongue. He says it has not been his custom to remove the entire tongue as a routine operation in every case of cancer. In only one of his successful cases was the entire tongue removed. In the complete group of 102 cases the entire tongue was only removed 16 times, and an analysis of these 16 cases shows that four of the patients died of the operation, and two of these shortly after their return home, and that five suffered from recurrence in situ, and that only one case can have claimed to be cured.

The question of the removal of the

entire tongue is one of considerable importance. The operation, to say the least, is dangerous, the patient is cruelly maimed, his speech is very defective; he has difficulty in taking solid food, he suffers from a collection of mucus and saliva in the mouth, and if his occupation depends on speech, even in a moderate degree, he is forced to abandon it. There is ample proof that a removal of a portion of the tongue is sufficient to cure a considerable percentage of patients, and to save a much larger percentage from recurrence of the disease within the mouth.

In the removal of the tongue the author aims at removing the cancer with three-quarters of an inch of apparently healthy tissue around it in every direction.

In many instances the lymphatic glands were found enlarged, within a few weeks of the outbreak of the primary disease.

About 90 per cent. of the cases can be successfully treated by operation with but little fear of recurrence in situ, but of these 90 persons 30 will die of affections of the glands in the neck. In order to avoid this secondary recurrence the author advises the removal of the lymphatic glands of the neck at the time of operation, whether they be obviously enlarged or not.

A careful study of the cases shows that the lymphatics of the tongue are so disposed that they may pass through one or more of four groups of glands—(1) the submental group, (2) the submaxillary group, (3) the parotid group, (4) the carotid group.

With these groups of glands in mind the author, as a routine treatment, removes all the glands in the anterior triangle of the neck, including the submaxillary salivary gland. The dissection is commenced below and carried upward, and the large vessels are exposed for a considerable distance. This dissection, the author states, requires from an hour to an hour and a quarter. As but few of these complete operations have been performed, the author as yet is unable to draw conclusions as to its ultimate value.

THE SURGERY OF THE STOMACH.

At a meeting of the French Academy of Medicine, held on February 8, M. Doyen gave his experience with regard to the result of 146 cases of surgical operations upon the stomach. Of these 66 were malignant and 80 non-malignant. There were 22 deaths in all, and 20 of these were in cases of cancer. Of his last 55 cases 50 were successful, five of the patients being in extremis when they came under treatment. Gastro-enterostomy is a proper treatment for dilatation and ulcer with or without hematemesis. Roux's method is the only satisfactory one; it avoids all danger of infecting the peritoneum. M. Doyen makes use of the lever compression forceps, which were originally made for compressing the pedicle of ovarian tumors. Recovery is undoubted in cases of serious dyspepsia or when there is ulceration without pyloric stenosis. The patients eat like everybody else, and are quite unaware they have a stomach. The operation is also of great use in patients who apparently suffer from intestinal dyspepsia; hematemesis ceases after its performance and the biliary function is re-established.

—Medical Record.

The Worshipful Company of Skinners has voted $5000, the cost of opening vacant wards and building new out-patient rooms, to the City Orthopedic Hospital, Hatton Garden.

—The Medical Press.

RADICAL OPERATION FOR FRONTAL SINUS DISEASE.

Mr. Ernest Waggett showed a patient on whom he had performed Luc's operation five weeks previously for right frontal sinus suppuration of many years' standing. The skin incision followed the line of the eyebrow, and the trephine hole was made immediately above the superciliary ridge. The sinus was completely cleared of all the mucous membrane, which was throughout polypoid and bathed with pus. Attention was drawn to the advan-

tages of carefully suturing the periosteum over the trephine hole and of removal of the anterior end of the middle turbinate. From the first the cavity was irrigated by passing a fine flexible tube up through the drain tube. The latter was removed on the thirteenth day. No pus had been seen since the operation, symptoms were absent, no depression of the bone could be detected, and the skin scar was unnoticeable.

Dr. Herbert Tilley thought that the case was a good illustration of the value of the incision through the line of the eyebrow, for the resulting scar was scarcely noticeable. He mentioned this because one authority on frontal sinus disease had maintained that am edian vertical incision should be made in every case, whether the symptoms were uni or bilateral. Mr. Waggett's case was at least the second or third which had been before the society, and in which the value of the supra-orbital incision was very evident.

—The Laryngoscope.

Current Medical Literature.

OBSERVATIONS UPON THE TREATMENT OF SOME CASES OF NEURASTHENIA.

BY JEROME K. BAUDUY, M. D., LL. D., St. Louis, Mo.

That chalybeates, more especially the organic salts of iron, constitute an essential indication in the successful treatment of some cases of neurasthenia, especially in the female, where functional menstrual derangements exist, is to my mind an indisputable fact. They produce conditions, oftentimes not attainable by the inorganic preparations for many reasons, which experience and reflection clearly demonstrate.

In a recent clinical study of this affection my conclusion, as above stated, is fully justified and corroborated by the microscopical blood examinations conducted by my esteemed and skillful friend, Dr. C. Fisch. That cerebro-spinal anemia is a frequent important concomitant, if not an essential etiological factor of neurasthenia, I hardly think admits of cavil.

The clinical histories of appended cases were compiled by my son, Dr. Keating Bauduy, chief of the Neurological Clinic at St. John's Hospital, under whose direct supervision the investigations were conducted. That the ratio, or number of red blood corpuscles, and the percentage of hemoglobin were deficient in the normal standard of these cases, prior to the treatment, is incontestable, as shown by the miscroscope. That several of the cases to be enumerated showed marked improvement, even after one or two weeks' treatment, is moreover revealed in the same manner, and which for rapidity of effect is quite an exceptional, if not a startling therapeutic result, when compared with some of the prior and more established methods of treatment. That many of these cases presented unmistakable evidence of satisfactory improvement, from both a subjective and objective standpoint, was quite as notable as the permanent character of their general amelioration. That the ordinary tonics had in some instances been administered with nugatory results, while pursued along the old lines of authoritative medication, seems quite manifest.

My only explanation of the surprising results in the cases herein cited, where the usual official class of remedies had formerly been ineffectually essayed, was the superinduction, as is so frequently the case of disturbed digestion and assimilation; results but too familiar and disappointing to professional experience. Aside from the disturbances just mentioned the development of headache, constipation, etc., frequently obviate their further administration.

When a few years ago my attention was called to Gude's preparation of "Liquor Mangano-Ferri Peptonatus, Gude" (Pepto-Mangan) so extensively used and highly extolled in Germany, with my usual antipathy

Read before the St. Louis Medical Society, Saturday evening, February 5, 1898.

for new remedies I reluctantly gave it a trial, anticipating that I would necessarily have to combat the usual disappointing effects of most of the other preparations of iron. The results, however, were indeed a surprise to myself, for the concomitant deranging sequelae were so slight, that but in very few instances in my extensive utilization and experience with this special pharmaceutical preparation was I obliged to discontinue it. My experience having led me to believe that iron and manganese in combination are both indicated in the vast majority of cases of neurasthenia, this particular remedy, I am now convinced, will prove a great boon both to the patient and the physician. While it is maintained by some that in the hemoglobin of the red blood corpuscle manganese is present, as well as iron, I have for many years procured results with a combination of both, not directly obtainable with one alone. We know, however, that manganese gives off oxygen to a greater degree than iron, and it has been argued that for this reason its internal exhibition might correspondingly increase assimilation.

Dr. Fisch's appended microscopical report shows that the increase in the percentage of hemoglobin in many of this series of cases is far in excess of the proportionate increase of the red blood corpuscles. This fact I deem of greater importance as to the effectiveness of the medicine, because the count of the blood corpuscles is to a certain extent relative, and the size varies greatly in different cases, and for other reasons the same amount of blood plasma contains different numbers of red cells; hence I would particularly lay stress upon the proportionate increase of the hemoglobin as the more important factor. The notable and astonishing improvement of these cases, when placed upon this preparation, led me to their closer scrutiny, as well as microscopic observation. Before concluding I wish particularly to call attention to the fact of the absence of digestive disturbances and necessary consequent interference in the assimilation. All other unpleasant complicating results were notable by their absence. Of course we do not consider the remedy applicable to cases of lithemic neurasthenia, nor in any manner a specific in any variety of neurasthenia. In many cases the addition of arsenic and strychnia greatly increases the inefficacy of the preparation. I must also take cognizance of the salient fact of the rapidity with which a large number of female neurasthenics, under our treatment, who have suffered with marked functional menstrual derangements, have attained a normal condition under the administration of this most elegant combination of iron and manganese.

DISCUSSION.

Dr. Stoffel—I would like to ask Dr. Bauduy whether he does not think the dieting of patients and placing them in hygienic surroundings had not as much to do with the results as his medicine?

Dr. Fairbrother—I would like to ask another question. If this "Pepto-Mangan" is not in the class of proprietary medicines?

Dr. Keating Bauduy—I will endeavor to respond to the questions propounded. Dr. Stoffel wants to know if the dietetic and hygienic measures alone being adopted would not have effected a cure in the cases reported. I will state that in many of these cases we have tried other preparations of iron and with rather negative results; and in all these cases we have observed hygienic and dietetic indications without obtaining these remarkable improvements. Now I do not wish to be understood that this remedy is a panacea; I merely give you the data and clinical facts, and the results of the microscopic investigation, and you can take them for what you believe them to be worth.

I will answer Dr. Fairbrother by saying that I presume that this is a proprietary remedy, but I use a good many other proprietary preparations. I use antipyrine, and I suppose the Doctor does; I use phenacetine, sulfonal and other such proprietary remedies, and I will tell you candidly,

gentlemen, that I use whatever I find benefits my patients. Of course I do not propose to use nostrums or remedies of which we know nothing about their composition. But the Gude preparation of iron does not belong to this class; a great many gentlemen here use it; I use it because it is the best remedy that I have obtained for the treatment of these cases.

Dr. Johnston—There is no iron in it; is there, Doctor?

Dr. Keating Bauduy—Yes, sir; there is iron in it; in the form of a peptonate of iron.

Dr. Jerome K. Bauduy—One salient feature of this paper which has not been brought out as prominently as it might have been, on which I wish to lay particular emphasis, is that, whether it be a proprietary remedy or not matters not, provided it cures our patients. It is our business to cure our patients, it matters not by what means. But the point is this, that it is my opinion, based upon observations in these cases, that we have not paid sufficient attention to the organic salts of iron; in other words, that the other preparations of iron do not produce the results that these organic preparations achieve. For years the combination of iron and manganese I have used in daily practice. I have used a great many of these preparations and the great point has been to obtain one which is assimilable, that is elegant and that will not produce anorexia and other gastric disturbances. Now, with the organic salts of iron we have had startling results, and I intend to use them as long as they benefit my patients. I do not wish to be understood by the neurologists and others present as saying that this is a proper remedy for all cases of neurasthenic and anemic cases described, especially in women suffering with menstrual irregularities, especially those accompanied by hemorrhage. I simply want the gentlemen to judge by the results. "Facts speak louder than words." "Fecta non verba."

—Medical Review, March 12, 1898.

NOTE ON THE POISONOUS ACTION OF CREOSOTE AND GUAIACOL AS COMPARED WITH CREOSOTAL AND GUAIACOL CARBONATE.

BY DR. W. HESSE, of Dresden.

(Translated from the Deutsche Medicinische Wochenschrift, 1898, No. 5.)

At the session of the Society of Charite Physicians, of Berlin, held on May 20, 1897 (Berliner Klinische Wochenschrift, 1897, No. 49), Dr. P. Jacob reported on the favorable results that he had gotten from the use of creosotal in the phthisical cases of the First Medical Poliklinik. In the discussion that followed it was stated by one member that creosote itself was of at least an equal value with creosotal, and that one case under his care had stood daily doses of eight grams (two drachms) for many months. It appears that such large doses of creosote have been used recently in a number of cases. Such carelessness in the use of the poisonous creosote induces me to record certain experiments that I have recently made, and which have a bearing upon the subject. The results of these experiments lead me to make the statement that the administration of such large doses of creosote is a decidedly risky matter.

1. On November 10 of this year a dog weighing six and one-quarter kilograms (13 3-4 pounds) was given 10 grams (two and one-half drachms) of creosote in gelatine capsules. Five minutes later the animal became stupid and relaxed. Then it fell down and could not rise again. It became senseless, and the twitchings of the limbs, lips, and ears appeared. There was no reaction of the lids, the breathing became rattling, and 20 minutes after the administration of the first capsule death occurred without any other special symptoms. The autopsy showed an acute gastro-enteritis (stomach badly cauterized, small intestine violently inflamed), and odema of the lungs in consequence of cardiac paralysis.

2. On the same day the attempt was made to give a dog weighing nine and one-half kilograms (21 pounds) 16 grams (four drachms) of creosotal. It was only found possi-

ble to administer three grams (three-quarters drachm). The general condition of the animal was not disturbed in the least by the dose.

3. On November 11 sixteen grams (four drachms) of creosotal were administered to the same dog in gelatine capsules. An hour and a half later there was a semi-fluid stool. One and a half pounds of mixed food (meat and rice) was then given to the animal. Three hours after the ingestion of the creosotal he vomited a part of this food. Part of the vomit he ate up again. Beyond a very transitory dullness and languor nothing abnormal could be noticed about the dog.

4. On November 13 a dog weighing 10 kilograms (22 pounds) was given 20 grams (five drachms) of creosotal in gelatine capsules. There occured no change in his general condition.

5. On November 13 a dog weighing four and three-quarter kilograms (10 1-2 pounds) received four grams (one drachm) of liquid guaiacol in gelatine capsules. Immediately thereafter he drank some milk.

Thirty-five minutes after the ingestion of the first capsule there was uncertainty in the movements of the posterior portion of the body, and wobbling gait.

Forty minutes after the ingestion of the first capsule the animal fell repeatedly and got up again.

Forty-five minutes after the ingestion of the first capsule, vomiting of the milk, trembling, more especially of the limbs; deficient pupillary reaction.

One hour after the administration of the first capsule, repeated vomiting of milk, rattling breathing, watery flow from the mouth; cannot stand up.

An hour and a third after the administration of the first capsule, vomiting of milk and mucous; sensibility gone; mucous flow from the mouth.

Two hours after the ingestion of the first capsule, repeated attempts to get up, which are occasionally successful; dizziness and falling.

Two and one-third hours after the ingestion of the first capsule, lies quietly, subnormal temperature, very rapid pulse.

Three and two-thirds hours after the ingestion of the first capsule, lies motionless; breathing difficult, infrequent (eight to the minute), and stertorous.

In this condition the animal remained for three hours; then the breathing became still less, the animal got cold, and it died half an hour later (seven and one-sixth hours after the administration of the first capsule). The post-mortem revealed the presence of an acute gastro-enteritis (violent inflammation of the stomach and the first 40 centimeters—15 1-2 inches—of the small intestine, with swelling of the mucosa of the rest of the canal), and edema of the lungs in consequence of cardiac paralysis.

6. On November 10 the dog of 10 kilograms (22 pounds) weight, used in experiment No. 4, was given 20 grams (five drachms) of Guaiacol Carbonate in one-half kilogram (one and one-tenth pounds) of raw chopped meat. His general condition was not disturbed thereby in the slightest.

7. On November 13 the dog weighing nine and one-half kilograms (21 pounds) mentioned under No. 2, was given 25 grams (six and one-quarter drachms) of Guaiacol Carbonate in one-half kilogram (one and one-tenth pounds) of chopped meat. His condition remained normal.

The experiments fully confirm the accepted facts concerning the drugs in question. They prove that both creosote and guaiacol are poisonous and fatal in large doses, and that they are irritant and caustic. They also prove that Creosotal and Guaiacol Carbonate, even in large doses do not disturb the general health in the slightest.

HEADACHE.

M. Benedikt first refers to the different forms of pain as they affect various nerves. (1) Pains which appear and disappear suddenly, and are due to disease of nerve roots or their immediate prolongations into the central nervous system. (2) Pains which begin gradually and increase by excerbations, and finally diminish. This is followed by an interval entirely or nearly free from pain.

This form is due to a lesion of the nerve plexus or the nerve trunk. (3) The pains are less variable, of more or less long duration, and due to lesions of the nerve termination. As regards the tensory nerves of the head, pains may be observed in the trigeminal and occipital nerves, and in the upper cervical plexus. Shooting pains may occur in the fifth nerve, but the pains more often present the characters belonging to the third group. Migraine is a peculiar form of headache. It is remarkable that pains may occur in local brain disease, and especially tumors, which have all the characters of those due to lesions of the meninges or bones. These pains have not an eccentric character, because they are not directly due to the focal lesion; that is, that the nerves apparently affected do not spring necessarily from the diseased portions of the brain. The author looks upon the view which would assign these pains to intracranial pressure as untenable. He says that every abnormal irritation within the brain has a corresponding area of irritation of the skull. He relates a case of a small tumor in the brain, in which the symptoms, and also the other morbid lesions found, could not have been due to intracranial pressure. In regard to treatment Benedikt looks upon the iodides as the most valuable remedies in neuralgia, and he thinks little of the many anodyne agents more or less recently introduced. Electrical treatment is the next most valuable method, and then points de feu. In the latter case the wounds are kept open by an irritating ointment. This cannot be done in trigeminal neuralgia, and the author looks upon the operative treatment as being the best, the success being due to the mechanical effect of tearing, etc., applied to the nerve. Bloodless stretching is also recommended in some other neuralgias. Anemia, syphilis, albuminuria, of course, require treatment. The author says that the electrical treatment of migraine is the best, and he even speaks of hypnosis here. Sodium iodide has a favorable action. The pains due to organic brain disease, and especially tumor, since they are not directly focal symptoms, may be influenced by measures not necessarily addressed to the original disease. Hence the iodides and mercury may be useful in non-syphilitic cases. Points de feu may also be valuable. Benedikt thinks that any palliative results which may follow upon trephining are merely due to revulsion.

—Wiener Klinik, March, 1898.

WHEN MAY WOMEN WITH HEART DISEASE MARRY?

Kisch discusses this question. He does not agree with Peter's dictuh: "Fille pas de mariage, femme pas de grossesse, mere pas d'allaitement." Every case, however, must be decided on its merits. The chief points to be considered are (1) the kind of heart disease, (2) its duration, (3) the presence or absence of compensation, (4) the general health, (5) the social position of the patient. (a) They may marry if the disease is not of long standing and compensation is good, and the general health not undermined. They will have during pregnancy, and still more during and for a time after delivery, many troubles due to their heart, but in by far the greater number of cases there will be no danger to life. This applies to well compensated mitral regurgitation and stenosis, aortic regurgitation, fairly marked sequelae of pericarditis, and to muscular degeneration if not too far advanced. The patients must also be in a position to spare themselves bodily exertion as much as possible during pregnancy, to avoid mental excitement, and to have constant medical supervision. (b) The prognosis is not so good if the patients are very anemic or nervous, or advanced in years, or if the valvular disease is congenital or acquired in childhood. In these cases the physician should advise against marriage, or at any rate point out that the disease will almost certainly become worse after marriage. (c) Marriage is to be absolutely forbidden as dangerous to life when compensation is failing or when there is advanced muscular degeneration. In all cases where there is dyspnea, palpitation and a

quickened pulse on slight exertion, or marked edema not disappearing after rest in bed, when there is a tendency to arrhythmia, scanty urine with albumen, and attacks with irregular small pulse, coldness of the extremities, nausea, dyspnea, syncope, etc., marriage is dangerous whether the cause of the symptoms be valvular disease, diseased arteries or cardiac muscles. Even those for whom marriage is allowable must follow certain rules strictly: (1.) Coitus must not be frequent, and must be continued to the end of the orgasm, otherwise reflex heart troubles and depression result. (2.) They must not have more than one or two children, as the strength of a diseased heart diminishes with every pregnancy in geometrical progression. If this rule is followed induction of premature labor will be luckily seldom necessary, since when it is the results are very unfavorable.

—Therapeut. Monats., February, 1898.

THE TREATMENT OF PNEUMONIA.

De Renzi advises the frequent use of a mouth wash of sublimate solution (1 in 5000) or ac. salicylic (1 in 500) both as a prophylactic and as a germicide, killing the pneumococcus which is frequently found in the mouth. He dwells on the importance of fresh and pure air and on the necessity of feeding, relying chiefly on milk and eggs, broths having certain disadvantages. As to drugs, the only one recognized by him is alcohol (ethylic), which he is in the habit of giving to all his cases. Since the introduction of the antipneumonic serum (prepared by Pane) he has used it with very gratifying results. During the last three years he has used the serum in 32 cases (and in the earlier years only the severest cases were selected; in the last year all the cases (14) were treated with serum), with a mortality of 9 per cent., whereas in the previous years, with the ordinary treatment in vogue, the mortality was 24 per cent. No bad results have followed injection, and in one case as much as 200 c. cm. was injected in the course of 24 hours. The most marked effect was the lowering of the temperature. Of the three fatal cases two were admitted almost moribund, and the third had serious concomitant disease.

—Gaz., degli Osped. e delle Clin., Feb. 13, '98.

TRANSMISSION OF SYPHILIS TO THE THIRD GENERATION.

Buret discusses G. Ogilvie's recent paper on this subject (British Journ. of Derm., October and November, 1897). He agrees that, although syphilis may exert a "dystrophic" influence on the third generation, proofs of transmission of the disease are, up to the present time, more or less vague, and are not supported by clinical evidence. Buret is of opinion that the children of hereditarily syphilitic parents may be feeble, puny and deformed, and less resistant to certain chronic affections; also that in such children retinitis, choroiditis, keratitis, caries and necrosis of bones are possible, but are due primarily to the congenital feebleness of the child, the syphilis of the forefathers only preparing the soil for such affections. But condylomata, etc., occurring in a robust child born of healthy parents cannot be put down to syphilis in one of the grandparents, but must be acquired. With regard to the question of reinfection by syphilis Buret believes that further indisputable clinical facts are required before this can be definitely accepted.

—France Medicale, February 4, 1897.

ROENTGEN RAYS AND BACTERIA.

Rieder first refers to the mostly negative results obtained by previous investigators. The apparatus used by him was an induction machine with a 30 cm. spark and a reliable interrupter. The distance of the cathode from the culture was generally 10 cm. A lead cover with an aperture in the middle was substituted for the glass cover of the Petri's dish, as glass absorbs the rays. (1) Agar tubes were inoculated with

cholera vibrios and poured out into two dishes. One dish was then exposed to the rays for 45 minutes, and then both were put into the warm oven. It was found that there was much less growth on the exposed plate. Two similar plates were taken and the one exposed was covered with lead as above described. In the part corresponding to the aperture there was practically no growth. The growth of the cholera colonies was almost entirely checked, only a few large colonies developing. With the B coil and an hour's exposure only a few colonies appeared. The same was true of the S. pyogenes aureus, even with a shorter exposure. With the S. pyogenes there were many fewer colonies in the exposed parts than in the periphery. Diphtheria bacilli inoculated upon serum showed only a few colonies in the exposed part. With anthrax and the typhoid bacillus hardly any colonies appeared, whereas in the periphery the typhoid bacillus grew luxuriantly. The author says that other bacteria can also be influenced in their growth. (2) Rieder has also investigated the action of the rays on already developed colonies. On a cholera plate no increase or diminution in the growth was observed in the exposed parts, but on reinoculation into fresh media the growth was normal. Thus no bactericidal action was obtained here. By exposing cholera bouillon, however, in thin layers to the action of the rays some result was obtained. In the case of the B coli further development of the colonies was interfered with. Experiments also indicated that the growth of the tubercle bacillus could be influenced by the rays. These results differ from those obtained by other observers. Thus the power of further development of bacteria outside the body in good nutrient media is fairly rapidly impaired by the Röentgen rays. The results were the same whether the aperture in the lead was covered by paper or not. The heat given out with the rays does not exercise a bactericidal action, nor is there any chemical alteration induced in the media. The author thinks that these experiments encourage further investigations with the rays, not only upon animals, but also upon the human subject.

—Munch. med. Woch., January 25, 1898.

PAPILLOMATA OF BROAD LIGAMENT.

Delageniere dwells on the apparently hopeless character of papillomatous tumors of the broad ligament as far as operative relief is concerned. In two cases, however, he has successfully removed the whole papilloma down to the very last trace by first removing the uterus entire, so that the pelvic cellular tissue can be well opened up. The entire operation is performed from the abdominal side. After the peritoneal cavity has been opened the fundus is drawn well up by a volsella, the lower part separated from the bladder in front and from the vagina behind, and the lateral parts freed from their connections. By a circular cut the vagina is then set entirely free, and all the bleeding vessels secured. The papillomatous cyst now appears in the wide breach made in its broad ligament, which is opened up further, in the usual manner, to the brim of the pelvis, so that the cyst can be enucleated. After that has been done the peritoneum is sewn over the rent in the broad ligament, so as to reconstitute the pelvic floor, and Douglas' pouch is drained.

—Ann. de Gynec. et d'Obstet., Dec., 1897.

CAESAREAN SECTION; UTERO-VAGINAL FISTULA.

Savor states that in August, 1897, a woman aged 34 was admitted in Chrobak's wards in her second pregnancy. The pelvis was much deformed, and in 1892 Schauta performed Caesarean section; the child lived only three weeks. The uterine wound was closed with silk sutures. Convalescence was rapid. Early in January, 1897, the second pregnancy began. By the middle of June the patient quickened. She was very thin, sickly and rachitic. In August she began to feel very ill. The urine was albuminous and ammoniacal. In hospital she was feverish and there was dyspnea with bronchitis.

On August 28 she was much exhausted. As she could not be delivered at term per vias naturales and was too ill to tolerate abdominal section, Chrobak used Hegar's dilator and ruptured the membranes when the cervix was sufficiently wide. The waters, very abundant, escaped, giving relief to the pulmonary symptoms, but spontaneous delivery did not take place until two days later. Very little blood was lost, but the patient died an hour and a half after delivery from fatal syncope as she tried to sit upright. The urine during labor was bloody. At the necropsy the bladder was found dragged upward by a strong adhesion to the front of the uterus. It contained a phosphatic calculus one inch and a half in its longest diameter. A small fistulous tract made a communication between the uterine and vesical cavities. It is remarkable that the decidua lined the track up to the vesical mucous membrane. Hence it must have existed before the pregnancy; the decidua developed along it, and it opened at its uterine end on the area to which the placenta had been attached. After convalescence from Schauta's operation there were no signs of a utero-vesical fistula. But a silk thread formed the nucleus of the calculus. The bladder had not been touched at the operation; one of the lower silk sutures must therefore have worked its way into the vesical cavity, leaving a tract. During pregnancy septic infection of the uterus occurred.

—Centralbl. f. Gynak, No. 49, 1897.

DRY GANGRENE OF FETAL LEG.

Stolz describes a remarkable case of twin labor where one twin was flattened and macerated, whilst the other had gangrene of the leg from constriction. The mother was 18, and had already borne a child to term. She was in very good health. The first twin presented in the second vortex position at the labor, which took place in the twenty-sixth week of pregnancy; it was living and weighed but one pound and four ounces, measuring not quite a foot; it lived 65 hours. The macerated fetus was delivered 20 minutes later; it was under 10 inches in length. There was a common placenta. The right leg of the first fetus showed a deep circular constriction under the patella. The part below was peg-shaped, ending in a point of skin, through which the lower extremeties of the tibia and fibula projected, with polished ends. The foot, well formed, turned inward behind the bones. The skin over the undeveloped part of the leg was livid at birth and rather lax. Though the infant lived but 65 hours, all the more prominent symptoms of dry gangrene (which had evidently set in before birth) became well established. The lax integuments shrank more and more, and grew black and dry, whilst the child was still breathing. The epiphyses were quite loose. Had the fetus remained to term in utero the leg would probably have undergone complete spontaneous separation, or have been so atrophied at birth as to retain its vitality with a very small blood supply. As it happened, some unknown cause disturbed the pregnancy, the increased circulation through labor laid stress on the obstructed vessels of the constricted limb, which was still enough developed to require more nutrition than it could get, and the little it received proved quite inadequate after birth. The original cause of constriction must have been an amniotic bando; the umbilical cord had not coiled round any part of the child's body.

—Wien klin. Woch., January 6, 1898.

THE TREATMENT OF WHOOPING COUGH.

Marfan points out the two leading features in the prognosis of whooping cough; first, the number of attacks of coughing; secondly, the supervention of broncho-pneumonia; the former giving rise to various hemorrhages, epistaxis, meningeal, cerebral and otherwise, as well as various mechanical effects on the lungs, the second causing serious change in the lung tissue and constitutional effects. This complication may be immediately ascertained

by the presence of temperature as the spasmodic condition is afebrile. From this it may be gathered that the therapeusis of whooping cough may be divided into, first, the treatment of the spasmodic condition; secondly, pneumonic. For the first the writer particularly makes use of three remedies—belladonna, antipyrin and bromoform, the dosage varying with the age of the patient. In the case of belladonna the quantity should be increased daily until the severity of the spasmodic attacks is reduced. Unfortunately it not infrequently happens that the physiological effects of the drug manifest themselves before the cough shows any diminution. This is the great drawback to this drug. Antipyrin is administered with syrup of orange. Like the former, the dose may be increased daily till the maximum is reached. Its effects are often extremely good, but the objection to its use is that should there be any symptom of broncho-pneumonia it must be stopped, as its depressing action may be conducive to dangerous symptoms. Bromoform, the writer thinks, is likely to replace both of these drugs. As it is soluble only in alcohol and glycerine, its administration is sometimes a little difficult, but Marfan prescribed it with an emulsion of almond oil and mucilage, flavored with orange. The child may get up to three drops if about six months old, eight drops when 2 years old, and when over 5 years of age from 20 to 30. The first symptom of intolerance is drowsiness, and, as this requires large doses, it follows that the drug is not dangerous when used with ordinary precaution. One important point is that during the first stage of its administration the attacks of whooping cough may be slightly more marked, after which they subside. Another point worthy of note is that bromoform has no injurious action on the broncho-pneumonia. It is difficult to know if this drug has any power to shorten the duration of the disease, and the writer, from his observations, is inclined to think that it does so. As to the broncho-pneumonia, Marfan states that it is much more liable when there is rhinitis or lesion of the buccal mucous membrane, and that it is important that all cases complicated by broncho-pneumonia should be separated from others. The treatment is the same as in any other case, but the antispasmodic treatment should be continued, for the author denies that, as stated by some, broncho-pneumonia arising in the course of whooping cough, has any beneficial effect on the disease. As to the management of the case, Marfan has come round to the opinion that cases of whooping cough should not be allowed out, as they do better, especially in towns, by remaining absolutely indoors, but it is advantageous to change the case into a different room for the night. So soon as the whooping character of the cough has disappeared the author recommends change of air, especially to the seaside, as the patient usually has some cough which may last for a considerable time. The duration of the contagiousness extends over the whole period of spasmodic cough, though some consider that it is only the invasion period that is dangerous.

Journ. de Med., March 10, 1898.

THERAPEUTIC USE OF EXTREME COLD.

Letulle and Ribard, at the Medicale des Hopitaux, of Paris, described their method of the local application of extreme cold ("krymotherapy") to overcome anorexia of phthisis. Their plan is to apply during about half an hour every morning a bag containing about two kilogrammes of carbonic acid gas, to the epigastric and hepatic regions. The skin is protected by a thick layer of cotton wool, and maintains a temperature of about 25 degrees C. A second application precedes the evening meal. The temperature of solid carbonic acid is about 80 degrees C. Pictet, who first experimented on men and dogs with extremely low temperatures, thought that for temperatures below 60 degrees C. the diathermancy of even bad conductors of heat is so much increased that the rays traverse them like light passes through glass. Pictet, of Paris, and Chassat and Cordes, of Geneva,

treated cases by the cold of their "frigoric pits." Letulle and Ribard prefer the above-mentioned method, and think that some organs, such as the liver, are cooled more than others by the cold. The organism has to resist the cooling process, and the result is an increase of nutritive changes, a burning up of old materials, an absorption of new materials and an increase of appetite corresponding to the increased digestive vigor.

—Presse Med., March 19, 1898.

NAVY CHANGES.

Changes in the Medical Corps of the United States Navy for the Week Ending April 16, 1898.

Bureau of Medicine and Surgery, Washington, D. C.

April 9—Passed Assistant Surgeon L. L. Von Wedekind detached from the Naval Academy and ordered at once to the Minneapolis.

Passed Assistant Surgeon L. L. Spratling detached from the Naval Hospital, Philadelphia, Pa., and ordered at once to the Columbia.

Assistant Surgeon H. H. Haas detached from the Vermont and ordered at once to the Texas.

Assistant Surgeon R. V. Armstrong commissioned assistant surgeon from April 5.

Assistant Surgeon W. H. Bucher commissioned assistant surgeon from April 5.

April 12.—Medical Inspector D. Dickerson ordered to Marine Headquarters, Washington, D. C.

Surgeon D. N. Bertolette detached from the Marine Headquarters, Washington, D. C., and ordered to the Vermont.

Surgeon W. H. Rush ordered to the Dixie at once.

Surgeon J. M. Edgar detached from the Vermont and ordered to the Prairie.

Passed Assistant Surgeon J. M. Pickrell detached from the hospital, Washington, D. C., and ordered to the Yosemite.

Passed Assistant Surgeon A. M. D. McCormick detached from the Naval Academy and ordered to the Yankee.

Passed Assistant Surgeon M. R. Pigott ordered to the Naval Academy at once.

April 13—Surgeon L. G. Henneberger ordered to the Bureau of Medicine and Surgery.

April 15—Medical Inspector M. C. Drennan detached from the New York and ordered home to wait orders.

Medical Inspector C. U. Gravatt detached from the San Francisco and ordered at once to the New York as fleet surgeon.

Surgeon A. C. H. Russell detached from the Naval Museum of Hygiene and ordered to the San Francisco at once.

Surgeon F. J. R. Cardeiro detached from the Michigan and ordered to the New Orleans at once.

Assistant Surgeon W. H. Bucher ordered to the Vermont temporarily.

Assistant Surgeon M. V. Armstrong ordered to the Scorpion.

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Original

THE TREATMENT OF PERTUSSIS.

BY LOUIS FISCHER, M. D.

Before attempting to describe the treatment of whooping cough it is necessary to divide it into its three distinct stages, each stage of the disease requiring its own peculiar (specific) treatment. Thus, the first is known as the catarrhal stage, in which the diagnosis of the disease is sometimes very difficult to differentiate from bronchitis. The second, known as the spasmodic stage, is the one in which the typical whoop is present, and which for this reason renders the diagnosis very easy. The third stage, known as the stage of decline, because the disease has usually spent its force and terminates.

(Abstract of a paper read before the New York County Medical Association, October, 1897.

TREATMENT OF THE FIRST STAGE.

This consists of the ordinary expectoration remedies, chiefly belladonna, benzoate of sodium, quinine and minimal doses of codeine, 1-50 of a grain for each year three times a day, combined with 1-25 of a grain of extract of hyoscyamus.

R—Codeine pure .....gr. 1-50
Pulv. ext. hyoscyamus.....gr. 1-25
Sacch. albi. .....gr. x
M. f. pulvis dent tales doses no. xii.
Sig.—One powder every three hours for a child 1 year old, with a spoon of sterilized water.—L. Fischer.

The above is one of my favorite prescriptions, when the diagnosis of Pertussis is not clear. If the cough does not subside and the typical whoop appears, or if the history of

the case shows that the child coughs more frequently at night, flushes in the face, and that the cough is spasmodic in character, or if the child gets an attack of nose bleeding or blood spitting during a fit of coughing, even though the typical whoop is not present, the diagnosis can be pretty plainly made. This is more especially true if we know that the child has frequent intermissions of rest, and that the cough comes in typical spasms, and if we find that the temperature is not elevated.

In this stage of the disease, which is usually the second stage, it is advisable to give specific treatment, and here is where the value of Bromoform is usually attended with success.

In the New York Medical Record, September 6, 1890, I published a series of 50 cases of whooping cough treated with Bromoform. At that time Stepp, of Nuremburg, had just completed a series of investigations, and reported favorably on the treatment of whooping cough with this drug.

Since that time I have used this drug in hundreds of children, at the various institutions with which I am connected, and also in private practice, with excellent results.

The following doses have seemed to prove most adaptable: For a child 1 year old, one drop three times a day for two days, and then give one drop four times a day. If the cough is not lessened and the spasms much milder than before, after four or five days treatment with this drug I usually give two drops three times a day, and two extra drops during the night, making in all eight drops of pure Bromoform during 24 hours.

For a child 2 years old I commence with two drops three times a day, and increase in the same proportion, giving one drop more every second or third day, to each dose.

For a child 5 years old I give five drops three times a day, and gradualy increase one drop to each dose every second or third day.

My experience has usually shown that during the first few days there is no improvement, whereas after the fourth, sometimes on the fifth, day of treatment, there is a decided benefit, easily proven by a milder form of cough and by a lesser frequency of the spasmodic attacks.

This drug does not alleviate any pulmonary complications.

Toxic symptoms, like difficulty with breathing, skin eruptions, do not appear. In only one case have I seen typical Bromoform poisoning, which I reported in the June number, 1897, Volume X, Annals of Gynecology and Pediatrics, in an infant having taken about 40 drops of this drug in one dose. This child recovered.

It is advisable to try to prevent a secondary infection of the bronchi, which can usually be accomplished by lessening the cough paroxysms, besides by supporting the general nutrition of the body.

The following recipe is the usual way of prescribing this drug:

R—Bromoform puri
Imported (Germany) .....dr. ii
Sig.—Put into a dark small bottle with a rubber stopper. Keep in a cool place.
One to five drops three times a day as required.

Some of our domestic Bromoform has proven an utter failure in my hands, so that I have discontinued using it, and resort to the imported Bromoform only.

There are some cases in which even Bromoform fails, and in these cases it is advisable to use belladonna. This I use in the form of an ointment applied over the chest two or three times a day, and give an internal dose until the characteristic belladonna flush is produced. In other words, I push the drug to its physiological limit.

Even beladonna has failed in dozens of my cases, and in these quinine, and sometimes antipyrine, will do some good.

In some cases, particularly where several children in one family have been infected, I resort to the following plan: I give children the required doses of Bromoform during the day and use a 1 per cent. formaline vapor from a small kettle during the night. In this way the children not only inhale moist air, which renders the expectoration, if present, more viscid, but the formaline seems to have a decided antiseptic effect.

Great claims can be made for this method of treatment, because I impress upon all the mothers of these children so affected that they must live in the open air all the day, and ventilate the rooms as thoroughly as possible at night, besides resorting to a most thorough supporting diet.

Where epistoxis and hemoptysis is present a 6 per cent. spray of cocaine two or three times a day to the pharynx seems to do good. I invariably forbid all alcoholic drinks, and do not permit spices of any kind with the food of the children. In fact, the blandest kind of food should be allowed. Thus, oatmeal and milk, rice and milk, farina and milk, sago, soups of all kinds, very weak tea, buttermilk, butter, eggs, fruit, chicken and calves foot jelly and semiliquid diet throughout.

I believe that stimulating the chest by sponging with lukewarm sea-salt water, followed by friction with a rough Turkish towel, combined with fresh air during the day and night and a rich diet will aid in the treatment of this disease, and help the medicinal treatment above outlined.

The strictest hygienic measures of isolation of all healthy children must be enforced.

Every child suffering with whooping cough must be clad in warm flannels, special attention being given to having the feet warm, and to breathe the purest air possible.

The slightest irritation of tobacco smoke or onion smoke from a kitchen has frequently caused a spasmodic attack of cough, which could have been avoided.

The treatment of all complications arising during this disease must be all treated in the usual manner, particularly prolapses of anus and rectum or umbilical hernia or inguinal, must be treated in the usual manner.

Complicated pneumonia requires the usual mode of treatment, in addition to the treatment of the whooping cough.

Vaccination of pure bovine virus has been frequently tried by me for the alleviation of paroxysms of whooping cough with a negative result, so that I have entirely abandoned it.

The injections of serum used by Dr. Violi in Constantinople, reported in (La Pediatria, 1897, No. 6) seemed to prove quite beneficial. This author has injected serum drawn from cows that have been inoculated with vaccine virus.

He has also injected a series of cases with diphtheria anti-toxine, and reports beneficial results from both kinds of injections.

He believes that it is the serum that has a beneficial effect, and not the anti-toxine contained therein.

—187 Second avenue, New York City.

PULMONARY TUBERCULOSIS AND HOW TO TREAT IT.

BY BEVERLEY OLIVER KINNEAR, M. D.,
107 E. 23d st., New York City.

In this much-dreaded and fatal disease we have an antagonist to fight which has thus far conquered all attacks upon it which aimed at curative results after the disease was once well established. Many varieties of treatment and many remedies have apparently succeeded in ameliorating and even curing some cases of the disease, but no method of treatment or remedial system has yet been found to prevent its ravages and overcome its fatality. Every little while a new and infallible cure for consumption is reported and much enthusiasm is manifested, but after a time reports come in of a want of success, and the remedy drops out of sight, to be succeeded shortly by another one. This paper is intended to set forth some measures which may be preventive as well as curative, and as an ounce of prevention is better than a pound of cure, I hope that some good may be done by the statements which follow.

In the majority of cases the tendency to tuberculosis of the lungs is inherited, and families are more or less upon their guard as the younger members reach the age of puberty to protect them if possible from their insidious foe.

Children with this tendency are warned not to expose themselves to cold, and to be careful not to enter upon prolonged and exhausting effort, or in any way to act so that they become mentally or bodily exhausted. These very warnings intimate three important points to the writer from his medical observation and treatment: First, a feeble circulation; second, lack of vigor in metabolic processes, resulting from the first condition, and a shallowness of the respiration, resulting from the two former conditions; therefore an insufficient supply of oxygen to stimulate all vital action to normal vigor.

The best preventive treatment then for this disease will be to make an active and vigorous circulation throughout the organism; to deepen the respiration and supply oxygen and thus invigorate and strengthen all molecular processes.

The very fact, also, that these patients are liable to take cold easily, before the development of the disease, demonstrates to me that the circulation is not only feeble, but that the equilibrium of the circulation is temporarily lost and must be restored before the patient can gain full vigor and strength. This fact is indicated by the cool or cold extremities found in such people, and it is my experience, after many years of observation, that the legs, arms, feet and hands cannot be constantly cool or cold without hyperemia being present in the internal parts of the body; that hyperemia being greatest in the location where there is some inherited or acquired weakness; and so in hereditary consumptives the chances almost always are that exposure to cold, or chill resulting from any cause, will show its effect by an attack upon the lungs, and this is because there is already a hyperemia in the thoracic region.

Therefore another factor in the preventive treatment of phthisis is to restore the normal balance of the circulation of the blood to all the tissues and the organs.

If we can find any measures by which the excess of blood will be withdrawn from the chest and a normal circulation established in the muscular system and extremities, with a full supply of that life-giving

agent, oxygen, administered, there will follow, naturally almost, an increase of vigor and strength in the patient.

The fact that people who suffer with cold legs and feet are also subject to congestions of the internal organs and the nervous system I very fully entered into in a paper published in the Therapeutic Gazette, September, 1897, entitled "Neurasthenia or Neurosthenia, Which?" In this article I set forth some reasons why the feet and hands, etc., could not be chronically cold without hyperemia, inducing hyperfunction of the sympathetic ganglia, controlling the contraction of the arteries in the extremities; therefore by expelling the excess of blood from these sympathetics would be one means of restoring an efficient and healthy circulation to these parts of the body.

But in a person with a tendency to consumption cold could not be applied with benefit over the dorsal or cervico-dorsal sympathetics; because the arteries in the lungs are already too widely dilated, and either congestion of the lungs, or even an inflammation of them, or of the bronchi might follow; but cold over the last two dorsal and first three lumbar vertebrae will always accomplish a good result by expanding in active circulation the capillaries of the abdomen and legs, thus withdrawing from the thoracic region the excess of blood therein, and at the same time making a more perfect nutrition in the lower parts of the body. I have in several cases obtained refreshing sleep, with a cessation of the night sweats in phthisical people by this application, worn for three-quarters of an hour before retiring, and have also checked the tuberculous form of diarrhea, from which they suffer, by the same means.

But I have found that heat over the dorsal sympathetics will afford immediate relief to the attacks of pleurisy, to which the phthisical are liable, and which are so painful and depressing to the patient. The heat evidently acts by stimulating the dorsal sympathetic ganglia to increased function, which is indicated by the contraction of the arterioles in the inflamed pleura, and of course a termination to the attack. With a remedy like heat over the sympathetics the course of any extensive inflammation may be at once stopped if used in the incipient stages. In preventing consumption then, cold over the lower dorsal and upper lumbar region will act efficiently, and heat used for one-half an hour per day over the upper dorsal vertebrae will gradually overcome the undue dilatation of the capillaries in the thoracic region, which I have for a long time been convinced is the so-called normal condition of such patients even before any symptoms of tuberculosis appear.

Another very effective agent is the use of oxygen inhalation, of a pure gas, properly combined, like that of Walten's of New York. To prevent irritation of sensitive mucous membranes, oxygen must be combined with a gas of lighter specific gravity than itself, and the combination most effective is that used by the London Oxygen Hospital, of London, England.

It consists of two parts of pure oxygen, one of nitrous monoxide and one part of ozone, to keep it fresh in the cylinder. My observation of the action of oxygen upon the heart, the circulation and the respiration induces me to believe that it is one of the most powerful general tonics ever discovered. Its first action is upon the heart, which it stimulates to more powerful action. Its second is upon the systemic arteries, which it dilates in active circulation, and its third is, I imagine, by reflex action upon the diaphragm, so that respiration will become fuller and much more deep for several hours after the inhalations.

It appears to me to make the circulation more active by stimulating directly every tissue cell of all organs and tissues in the body, as it is carried by the circulation to all parts of the organism; by this stimulation causing expansion of all the arterioles and much more rapid metabolic changes than before its administration. That this exposition appears to be the true one may be noted by the fact that in anemic cases of any kind the inhalation of

oxygen after a few days will increase the appetite, which it would do, unless the result demonstrated more active molecular processes in general, and a good appetite means a call from the tissues for more nutrition than before the gas was inhaled. In other words, the vital processes are enhanced by oxygen inhalation.

This being so, the excess of blood is withdrawn from the lungs, a new and active distribution of the circulation takes place, the respiration is deepened and the balance of the blood currents are restored. Thus we believe that oxygen inhalation may become a power in the prevention of this fell disease, as well as of the greatest service in prolonging the days of the phthisical subject, also adding much to the comfort of the patient.

These two methods of treatment if adopted by the profession, will, I believe, do much to prevent the spread of consumption. A third system of treatment in these cases, which has of late been attracting the attention of the profession, is the administration of bullocks' blood from the living animal placed upon the market in the form of bovinine. I have used it myself in children with excellent results. It appears to increase rapidly the formation of the red blood corpuscles, and with their increase follows a renewal of the vigor of the patient.

It also supplies nourishment in a simple and concentrated form. It may be given in teaspoonful doses three or four times a day in a little milk or water, or combined with port wine and water. The dose may be increased to a tablespoonful, or even a wineglassful, three or four times per day, directly the stomach becomes accustomed to the preparation.

The mountain cure of consumption has always appeared to me to be due to the effects upon the arterial circulation. The pressure of the atmosphere being much relieved upon the surface of the body in high altitudes, the respiration becomes deeper, and the superficial arteries expand all over the body, so that not only is the general nutrition improved, but the excess of blood is at the same time withdrawn from the thoracic area.

Another and most powerful method of acting upon the circulation which I have used now for three years, both for its tonic effects and to quickly disperse congestions and subdue inflammations, is a form of electricity generated by heat and cold, and which always acts apparently upon and through the vaso-dilator nerve centres. The instrument I now use is a cylinder filled with finely powdered minerals, into which, and through a steel cap, are sunk a copper and zinc post. Insulated wires three or four feet long are attached to the tops of copper and zinc poles, and terminate in two flat steel plates. When in operation the cylinder containing the minerals is made cold and the positive and negative plates are attached to the warm body of a man or an animal, it matters not which. The immediate effects of the treatment show themselves upon the pulse, which if feeble soon becomes round and strong, while the patient, if simply tired, feels the same exhilaration which follows hearty exercise. The hands and feet, if cold at the time of the application, quickly become warm, and a much more full respiration will be established.

For example, and to illustrate its action, I will refer to a case of tonsillitis treated by this method. The patient was very feverish, the temporal arteries were full and bounding, both tonsils were red and swelling rapidly, there was much pain in swallowing, and if the disease was allowed to continue, in all probability an abscess would follow.

The cylinder was placed in ice water and the plates were attached to the neck over the region of the tonsils. In the course of 20 minutes the temporal arteries were seen to be less dilated, and the force of the heart's impulse was already subdued, and after the patient had been treated for one hour the throat was again examined, and the tonsils were found reduced in size, while the effort to swallow caused much less pain than previously. The application was continued all night, with the result that profound sweating took

place; the patient slept well and awaked in the morning almost well; so much so that he went to business as usual. On his return in the evening the application was renewed for two hours, and on the second day he found himself completely recovered. I believe that the form of electricity generated in this way is carried by the sensory nerves to the spinal cord, reflected upon the vasodilators, and through them stimulates all the cells of the system, either of organs or of tissues, causing a general dilatation of the capillaries; therefore to supply the call of all the tissues, the excess of blood in the inflamed areas is withdrawn, and the congestion or inflammation dispersed or subdued as a consequence.

I have used this method in bronchitis, in pneumonia and in local inflammations, such as swelled face, with equal success, and I know of one case of appendicitis where the results were equally happy. A few days since I made the application in a fairly developed erysipelas of the face, conquering the attack completely in 24 hours and giving great relief in two hours, the vivid flush and redness of the parts being quite overcome in that time. It is evident, then, that such a method may do much to prevent phthisis, by making an equal and active circulation throughout the whole organism, and at the same time, if I am correct, during the process withdraw any excess of blood from the region of the chest which may have been present, thus preventing so ready catching of cold.

It has been the writer's experience for 17 years, chiefly by the use of cold over the spine, that if an active circulation can be induced in people of low vitality from any cause the results which follow are an increase in appetite, in strength and in weight, due to the call of the system when stimulated by active molecular changes for more nutrition, and of course greater activity of the circulation, in feeble subjects, means the inspiration of larger amounts of air, which contains the life-giving agent, oxygen.

It appears to me from the foregoing that the best method of preventing consumption is by making an active circulation in all parts of the body, thereby increasing its nutrition, and after a wide experience in treating many forms of disease by the above methods it is my firm conviction that if they be adopted by the profession there wil be found fewer cases of phthisis, or if developed they may be made comfortable, in some cases cured, and in the majority the life may be greatly prolonged.

NEW YORK SCHOOL OF CLINICAL MEDICINE.

SOCIETY FOR MEDICAL PROGRESS OF NEW YORY CITY. MARCH MEETING.

Dr. Louis Fischer, President, in the Chair.

Dr. William S. Gottheil presented a cast of a case of sclerosis. This latter term is designated in Germany for what we term chancroid.

Dr. Manley felt sorry that the new nomenclature of sclerosis was adopted by Dr. Gottheil, and believed it would be misleading, as a great many chancroids are not hard.

Replying to the question of Dr. Manley, Dr. Gottheil stated that he used ordinarily Marsden's Paste in the treatment of carcinoma. The caustic is far better in the treatment of neoplastic tissue that the knife.

Dr. Gottheil furthermore presented a series of very interesting photographs of the rarer forms of skin diseases.

Dr. Augustine Goelet presented a specimen from a patient 27 years old, which proved to be a cyst of broad ligament. He furthermore reported a case of a child 1 year old with recurring menstruation.

Dr. Garrigues in commenting upon this case said that bloody discharges from young girls must not necessarily be menstrual, unless it recurs regularly. The youngest case known to him was a girl 2 years old.

Dr. Louis Fischer stated that the case reported by Dr. Goelet was certainly an extremely rare and interesting one. Menstruation could only be considered as such when it recurred at regular intervals. A great many cases reported to him as such were found on careful examination, and especially those under long observation, to be merely sanguinous discharges due either to irritation, traumatism or other causes. He could not, however, remember a single case in which menstruation appeared regularly. A child, about 7 years of age, menstruated for one to three days in nine successive months, and had had epistaxis, lasting several days during the other three months of that same year. He therefore believed that the epistaxis could be construed as a vicarious menstruation.

Dr. Augustine Goelet next read a paper entitled "Making and Closing Coeliotomy Wounds."

The author described the reckless surgeon attempting to open the abdomen with one stroke of the knife. The experienced surgeon knows only two well that there is danger of wounding the intestine by such a course. Experience teaches him when he may economize time to the best advantage of his patient, and in order that he may achieve the best results he must take time to both make and close an abdominal wound.

For the closure of an abdominal incision he used two kinds of sutures, viz.: First, interrupted deep sutures of silkworm gut, including the whole thickness of the abdominal wall and a continuous suture of chromicized catgut of small sizes for uniting the peritoneum, muscles and fascia. The silkworm gut sutures are introduced first, then, beginning at the upper angle of the incision, having a long strand of chromicized catgut, the peritoneum and muscular layer below the fascia are united with the continuous suture down to the lower angle of the incision. From this point, without tying it, the same suture is continued from below up to the upper angle, uniting the fascia; here it is tied to the free end

of suture. In this manner one knot is required, and simply one, at the upper angle of the incision. When the tension is not great this suture is not even tied. There is a decided advantage in having no knot in the wound. The special feature consisting in including the muscular layer with the peritoneum in a continuous suture, which obviates the formation of pockets between these layers, as will happen when they are untied separately.

This method of uniting the abdominal incision gives the strongest possible cicatrix. Primary union occurs invariably and the author declares he has never had a hernia follow any of his operations since he has adopted this method, and no abdominal wall weakness.

The dressing and after management is simple; covering with a thick layer of dry Markasol, over this a pad of sterilized gauze, held in place by broad adhesive strips; over this is several layers of sterilized absorbent cotton and a bandage. The dressing is left undisturbed for a week, when the powder is brushed off, and if the latter is found caked, surface not washed and a fresh layer of powder is applied and a similar dressing. This is allowed to remain for another week, when the deep sutures are removed, then some of the same powder and a similar dressing is applied for another week. A permanent abdominal bandage may then be adjusted.

DISCUSSION.

Dr. Garrigues said that he had no remarks to make.

Dr. Manley said that Dr Goelet dealt only with the lower abdomen, and most of these troubles require some drainage, and therefore could not be closed entirely. He believed further that the incision might have been lengthened.

The speaker laid stress upon the need of a large incision, sufficient to expose the abdominal contents. He assured his hearers that a large incision offers no greater danger of ventral hernia than does a small incision.

Dr. Parker Syms expressed his disapproval of the McBurney incision, but approved that of Detmold. He laid stress on the need of seeing in abdominal work, which is attainable only by large incision.

The vital point of safety is attained by the larger suture, through which the danger of ventral hernia is reduced to a minimum.

Dr. Goelet in closing said he had intentionally limited his paper to the closure of the coliotomy wound. He preferred in all cases to close the abdomen and drain through the vagina.

For suspensio uteri or shortening appendages he prefers the small incision.

The next paper was read by Dr. Boleslaw Lapowski on "Parasitic Diseases of the Skin."

Amongst the parasitic diseases of the skin the affections due to vegetable parasites are of most importance. They may be divided into two classes; first, according to the tendency of the fungus to attach itself only to the superficial layers of the epidermis, as in pityriasis versicolor and erythrasma, or, second, where they involve the deeper strata of the epidermis, invading the hair follicles and the hair shafts, as favus and the trichophytosis.

The speaker dwelt mostly upon tinia tonsurans of the hairy portion of the body, giving its clinical and bacteriological characteristics. In selecting the remedies we have to be guided by the character and properties of the fungus, using mild and anti-parasitic remedies, as green soap, salic. acid, boric acid, in the superficial forms, and the fungus in he hair follicles with stronger remedies, like tincture of iodine. Ointments are of less use than liquids, as they do not penetrate the hair follicles as easily as liquids. Here the value of boric acid solution and tincture of iodine is most pronounced.

Radical epilation is the best remedy. By producing an artificial inflammation the epilation is easier accomplished. In using croton oil, formatin and chrysarobin the patient must be carefully watched by the physician.

A health certificate to a child can only be given after a very close in-

spection with a magnifying lens, as it is not rare to find short broken-off hairs amongst the healthy ones.

DISCUSSION.

Dr. Gottheil confirmed the author's views on the intractability of ringworms of the head. Ringworm ends when puberty comes.

Dr. Bleimann agreed that ringworm and favus are essentially chronic diseases. In his opinion the diagnosis of scabies requires the services of a dermatologist.

Dr. Goelet asked why the parasitic diseases are not curable, and whether cataphoresis or electrolysis would not be efficacious.

Dr. Phelps reported 30 m. a. cupric electrolysis for 15 minutes without result.

Dr. Lapowski in closing the discussion said the best results had been attained by him in using a simple boric acid wash 1-600. The use of iodine was also commended.

In dealing with fungus it was well to remember that no anti-parasitic remedy is a good antimycotic.

Dr. Picks' Clinic in Prague investigations proved the value of boric acid solution as the best antimycotic remedy.

Regarding electrolysis, he believed that where the diseased hairs were not numerous the use of the electric needle was accompanied by good results, but where the diseased hairs were numerous electrolysis was not practicable.

The meeting then went into executive session.

—Ferd. P. Lowenstein, M. D., Sec'y.

Editorial

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MODERN ADVANCES IN THE DIAGNOSIS AND TREATMENT OF GENITO-URINARY MALADIES.

The progress made in enlarging our knowledge of the etiology, the recognition and therapy of lesions along the genito-urinary tract during the past quarter of a century has been something stupendous.

Unfortunately for man that his ureters do not connect and drain their contents directly into the colon, as in the oviparara. As it is, the passage of the urine out of the body in the male is a most complicated process. From the time the urine leaves the renal pelvis its movements are governed by the same laws of hydrostatics as apply to liquids in another situation. The bladder in a female is liable to traumatism in the performance of physiologic functions, and the long, tortuous urethra of the male is subject to stenosis from a multiplicity of causes.

Twenty-five years ago almost nothing was known of the suppurative lesions of the kidney; everything was "Bright's disease." Urinalysis was nothing more than a rough chemical test, which to-day in itself is of little consequence. Bigelow nor Otis had not yet popularized their great discoveries which were to revolutionize the mechanical therapy of vesical stone. Of the cystoscope we knew nothing, and Guyon, Thompson and Alberran had not yet taught the role of bacterial invasion in the infectious maladies of the urethra, bladder and kidney. Direct renal surgery was unknown, as the great authority of Boyer had pronounced the kidney as the one organ forever beyond the pale of surgical endeavor. No maladies known are more trying to the sufferer than those of urinary lithiasis, suppurative cystitis or urethritis.

In vain in the past did we attempt to cure or relieve "cystitis," entirely oblivious of the fact that very often

the agony and suffering of the patient had its origin in an abscess of the kidney, discharging into the bladder, to there provoke fermentation and putrescent toxemia.

But now, thanks to the indomitable efforts of aggressive investigation, all this is changed and no large class of lesions is capable of more ready recognition and effective treatment than those under consideration. T. H. M.

BENSOLYPTUS.

This new antiseptic preparation which has lately come upon the market and to our attention, is proving an admirable remedy in the treatment of diseases of the nasal passages. It is an alkaline preparation consisting of various antiseptics recognized as efficient in the treatment of catarrh. It has proved of exceptional value in acute rhinitis used as a spray. We have also used it with effect in posterior pharyngeal catarrh of chronic nature in connection with other methods of treatment.

Internally it is indicated as an antiseptic and antiferment in cases of catarrhal gastritis and typhoid fever.

It is pleasant of odor and taste, resembling wintergreen. In the treatment of cases of nasal catarrh it is of great importance to dissolve and remove the thick and tenacious mucus and crusts, the presence of which not only adds to the existing irritation, but provides a fertile soil for the growth of injurious microbes. For this purpose bensolyptus is particularly adapted. Employed as a spray, injection, or douche in acute or chronic catarrhs of the nose, it diminishes or arrests the discharge, subdues the inflammation, and relieves the pains and swelling in the nose, and the feeling of dryness present in some cases. Bensolyptus may be diluted with from four to eight parts of water, the stronger solutions being used in the more chronic troubles.

RAILROAD RATES.

The Western Passenger Association, Chicago, formally announces the following rates for the Denver meeting of the American Medical Association, June 7-10, 1898.

Rate—One regular first-class normal tariff (not temporarily reduced) fare, plus $2, for the round trip from association territory to Denver, Colorado Springs and Pueblo, Col., and return.

Dates of Sale—Tickets to be sold from eastern committee territory June 3, 4 and 5, and from Transmissouri territory June 5 and 6, 1898.

Limits—On going trip tickets to be good for continuous passage commencing on date of sale up to first Colorado common point en route; stop overs to be allowed on going trip at intermediate Colorado common points, but to arrive at destination not later than June 7, 1898. The return to be continuous passage beginning on date of execution by joint agent, with the provision that the return passage shall not commence earlier than June 12, nor later than July 6, 1898. Tickets may be executed for return at destination or either of the other Colorado common points en route. Purchaser to commence his continuous passage return journey from point of execution.

Diverse routes—For this occasion tickets may read west of the Missouri River, going one route and returning another via any regularly authorized route via which regular short line one way rates are properly applicable.

Clinical Medicine.

In charge of DR. J. J. MORRISSEY.

BLOOD REACTION IN DIABETES.

Loewy records some further investigations of Bremer's reaction in the blood of diabetic patients. The original method of obtaining the reaction was to stain a film of blood in two solutions, each consisting of a mixture of 0.5 per cent. solution of eosin with a saturated solution of methylene blue, the one contained excess of the former, the other excess of the latter stain. After passing the film through these two mixtures successively Bremer found that in normal blood the red corpuscles were stained deep brown, whereas in diabetic blood they are left pale yellow or greenish yellow. Loewy, in his experiments used the simpler modification which has lately been suggested. The blood is stained two minutes in 2 per cent. methylene blue, and then 10 seconds in 0.125 per cent. eosin solution. Keeping strictly to the technique described by Bremer in this method, Loewy found that in every case of diabetes in which the amount of sugar in the urine was more than 2 per cent. the blood gave the characteristic reaction. In one case, where dieting had already caused the sugar to disappear, the reaction was still obtained in the blood. The failure of several observers to obtain the reaction in diabetes is probably due to their not having paid sufficient attention to the details of the method, which must be adhered to strictly. No reaction was obtained in the blood in cases of severe anemia; no opportunity occurring for trying it in leuaemia, in which some observers have found the reaction. The blood plasma is not necessary for the reaction; 5 c.cm. of blood were taken from a vein of a diebetic patient, and separated from the plasma by a centrifuge; the corpuscles were then washed with normal salt solution until the washings showed no trace of sugar; the typical Bremer reaction was then obtained with the blood corpuscles. It was also found that normal blood treated with a weak acid gave the reaction.

—Fortschritte der Medicin, March, 1898.

EXCRETION OF CARBONIC OXIDE BY THE LUNGS IN DIABETES.

Ebstein returns to the question as to whether there is a diminished formation and therefore excretion of carbonic acid in diabetes. He relates a case of diabetes in a man aged 47, in which Lehman investigated the gases of respiration. The patient was put on a given diet for several days previously. This diet was the usual one as regards albuminous matters, and was rich in fats, but poor in carbohydrates. During two days the amount of carbon dioxide excreted from the lungs was 705.3 and 670.2 g. respectively. A table is appended showing the details of the examination of the urine. The result of the investigation confirms the view that the diabetic gives out less carbon dioxide under similar dietetic conditions than the healthy individual.

—Deut. med. Woch., Feb. 17, 1898.

PAROXYSTIC CHRONIC ICTERUS WITH SPLENIC ENLARGEMENT.

G. Hayem gives an account of five patients presenting more or less analogous symptoms. They all have chronic jaundice of moderate degree, with occasional periods of excerba-

tion. In the intervals between the crises the liver is not at all, or only slightly, enlarged, but the spleen is always large, and seems abnormally hard to the touch. During the crises the jaundice deepens and the spleen becomes still more enlarged and tender to pressure, whilst the liver undergoes only a moderate uniform increase in size, remaining smooth and soft. The feces are always colored, excepting occasionally during the crises, when their color may be temporarily more or less completely lost. During the crises the urine becomes icteric and gives a distinct Gmelin's reaction, though usually during a short period only. At other times the urine contains urobilin and occasionally modified bile pigments, but Gmelin's reaction can never be obtained, though this reaction can always be produced in the serum of the patient's blood. There appears to be no special tendency to obstruction in the portal circulation, to enlargement of the subcutaneous abdominal veins, ascites, tympanites or hemorrhoids. In all the patients there were old troubles in connection with the functions of the digestive tract. All five patients were decidedly anemic. There may have been slight fever during some of the crises, but otherwise the icterus is unaccompanied by any abnormal rise of temperature. The periods of exacerbation appear sometimes to terminate with a fit of polyuria. Some of the crises suggested the possibility of cholelithiasis, but gall stones could not be found in the feces. On the few occasions when these were examined Hayem inclines to the view that his cases represent an as yet undescribed benign form of disease belonging to the group of infectious jaundice. He proposes to term the affection "chronic infectious icterus with splenic enlargement and crises of exacerbation." In one case from fluid abstraction from the patient's spleen he was able to obtain cultivations of encapsuled diplococci, resembling Fraenkel's pneumococcus. These microbes proved fatal to mice in less than 24 hours. The digestive tract may be the source of the infection, and the microbe need not be the same in all cases. He does not think the disease is identical with the chronic icterus, which he has described as occurring amongst certain dyspeptics, and which is characterized by the absence of bile pigments in the urine and their presence in the blood serum. The treatment which Hayem recommends consists in careful general hygiene, strict antidyspeptic regimen, milk diet during the exacerbations, sustaining the strength and seeing that the excretory functions are properly performed.

—Presse Med., March 9, 1898.

INFECTIONS OF THE URINARY PASSAGES.

BY MM. ALBERRAN AND HALLE.

It is interesting to note the situation now, on the question of urinary infections as contrasted with the state of things as formerly set forth by M. Roosing on "The evil of urinary infections."

According to Alberran, Morelle, Krogins, Rebland, Renault, Denys, Barlow, Schmidt, Oschoff and Melchoir it has been stated that the bacterium coli plays an important part in all purulent, acid urines, in suppurative affections of the urinary apparatus.

Roosing, however, has come to a different conclusion in his work published in Danish and German. He there gives the results of the bacterial examination in 29 cases of cystitis. In these all, except five which contained Koch's bacillus, the urine was ammoniacal, and only contained the micrococic ferment of urea. Not once in 25 cases of cystitis was the presence of bacteria demonstrated.

In 22 cases of bacteruria 10 contained bacteria alone, and 12, along with the pus globules. In all these cases the bacterium coli alone was found.

There were 21 cases of pyelitis without cystitis, in which 19 contained the bacterium coli and two where this was associated with other germs. There were 11 cases of pyelitis complicated with cystitis, the urine in all being ammoniacal. The bacterium-coli here was found in but one instance alone, in two others

associated with other bacterian varieties, as the bacillus liquefaciens, the proteus and the bacillus lingus.

In three cases of pyetitis complicated with cystitis ht urine was, in two, tuberculous. It is always acid in tuberculous urine. There were six cases of catarrhal cystitis, all containing microbes.

In 13 cases of suppurative cystitis the urine was ammoniacal, where the bacterium coli was associated with other ammoniagenetic microbes. There were 37 cases of suppurative ammoniacal cystitis without the bacterium coli, several with divers bacilli. In 13 cases of suppurative acid cystitis three were tuberculous, three gonorrheal, one gonococci with colibacillus, three with micrococci, three with immobile bacterium coli. Setting aside five cases of tuberculous urine there were 121 cases of infection of the urinary path. The bacterium coli was present in 60 pathologic urines; the other varieties of bacilli in 12, which gives 72 bacterial cases in 121.

According to Roosing the bacterium-coli produces bacteruria pure, without any inflammatory lesion of the mucous membrane. This bacillus may produce a pyelitis with suppuration of the renal ampulla. In pyelitic complicated by cystitis it is the sole course. It may produce a mild cystitis.

In some rare cases it may produce a suppurative cystitis. It seems quite powerless in provoking inflammation of the cortical substance of the kidneys.

According to Roosing the colibacillus is found more frequently in the urine than any other microbe; in the most frequent forms of bacteruria it is extremely benign and inoffensive. In a great number of cases it provokes a benign form of pyelitis.

—Annales Des Maladies Des Organs Urinaires, 4 April, '98.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

NOTE ON THE RELATIVE MORTALITY AFTER OPERATION FOR STRANGULATED FEMORAL HERNIA IN BOTH SEXES—MORTALITY AFTER OPERATION IN STRANGULATED UMBILICAL HERNIA.

ABSTRACT ON TABLES.
BY THOMAS H. MANLEY, M. D.
New York.

It will be observed that in the foregoing table on operative mortality that it practically embraces only those cases operated on in the decade from 1886 to 1897. Nearly all of those cases reported in this year's literature—1897—were operated on in the latter part of '96, my own case alone this year being the latest included.

In an analysis of the table on femoral cases it will be noted that the general mortality, even for strangulation of this formidable type of hernia is apparently of late years not so high. Mr. Bolby, of St. Bartholomew's, recently showed that the average operative mortality in strangulated hernia of every description in the London hospitals was yet between 50 and 60 per cent., and no doubt it is fully equal to that in our American hospitals. But in this country there are no annual reports published from our larger hospitals, as there are abroad, and hence why it is impossible to gather from our home literature complete figures on this important subject, as bearing on mortality.

The tables examined show that strangulated femoral hernia requiring operation is about ten times more frequent in women than men, although contrary to other published statistics, the operative mortality is about 10 per cent. greater in the male.

Statistics demonstrate that after middle life femoral hernia appears with increasing frequency in the male, and in advanced age is about as frequent in one sex as in the other.

If this statement be correct, then we must assume that strangulation occurs with less frequency in this type of hernia in the male, or if it does not effective taxis reduces it in most cases. The former is probably the correct assumption. The increase of mortality in the male often comes from the rupture being overlooked until the powers of the system are exhausted, or gangrenous changes in the intestine have set in.

Therefore, although a strangulated femoral hernia requiring operation is a serious lesion in the female, the mortality after such operation is less than in the male sex.

In the table of umbilical cases there are several which were not true strangulations, as it includes some incomplete and complicated.

BICYCLE FRACTURE.

BY WALTER GRAY CRUMP, M. D.

I have adopted the above name to designate a class of fractures which, although almost unheard of previous to the epoch of bicycle riding, is now becoming so common that it bids fair in the near future to rival with Potts and Collies for numerical supremacy. What Potts and Collies are to the ankle and wrist bicycle fracture is to that other great articulation, the knee.

The etiology of all three fractures is strikingly similar, the causative force in each being transmitted and not direct.

In bicycle fracture the etiological factors are as follows:

Riders often on trying to cross car tracks at too acute an angle, or attempting to make too sharp a turn on a slippery pavement find their wheels suddenly diverted from the plane of the centre of gravity and in order to save themselves from injury attempt to gain their feet by throwing out the leg on the side toward which they are falling. If the angle at which this leg strikes the pavement be out of proportion to the velocity at which they are falling there results a proportionately severe tension laterally at the knee. While this frequently results in a severe strain or sprain at this articulation, in some cases the lateral ligaments give way, while in others, due either to the greater strength of these fibro-elastic bands or to a more fragile condition of the bone, there results a fracture to the spongy portion of the lower end of the femur.

—The Chironian.

Note.—We must infer from the manner in which this fracture is produced that the extent of damage to the knee joint and adjacent structures is very extensive. Force is applied in such a manner as to violently contuse and twist the joint at the same time. The consequence is that the lesion presents many peculiar and special features, although, as the same may be encountered from violence of various kinds, it is not proper to designate it "bicycle fracture," and further, because we have witnessed every degree and type of fracture, of the cranium, thorax and extremities after falls or collisions on the wheel. However, as there is no question about some of the special features of the fracture so well described by Dr. Crump it no doubt would be well to retain the term, but restricting it to the knee. "Bicycle fracture of the femur" would be a more definite and exact term, as clearly as Potts' or Collies' fracture, implying always distinctive anatomical conditions and pathological states. T. H. M.

REMEDIAL MEASURES IN OBSTRUCTION OF THE COMMON BILE DUCT.

BY J. McFADDEN GASTON, M. D.,
Atlanta, Ga.

Constriction of the common bile duct from what is characterized as catarrhal inflammation of its walls or doubtless in some instances from spasmodic condition of the duct independent of the presence of calculi in the canal.

The cases of jaundice which result from the temporary closure or constriction of the common bile duct are usually left to the treatment of the physician and yet the precursors of derangements which require surgical interference and hence come within the sphere of this paper.

They commence with fundamental disturbance, but terminate in organic derangements.

Murphey lays great stress upon the relief of jaundice by julocarpine.

The reliance of the greater number of practitioners for relief in this class of cases has been, and continues to be, upon the phosphate of soda.

From the foregoing considerations we make the following inferences:

1. That obstruction of the common bile duct may result to a greater or less extent from catarrhal inflammation or from gall stones.

2. The ordinary accompaniment of any obstruction of the common bile duct is jaundice and the absence of the usual color in the fecal evacuations.

3. In the lesser developments of jaundice medication is to be relied on for relief, but in the more accentuated and persistent forms operative measures are always requisite.

4. An exploratory operation by incision diagonally beneath the right costal cartilages enables the operator to determine upon the nature of the impediment and the best means of relief.

5. In the various cases we may resort to catheterization, needling, crushing, traction, incision of duct or gall bladder, with attachment of either to the parietes or intestine.

6. That complete occlusion of the common duct cannot be remedied by the outlet of bile through a parietal opening, but calls for a communication of the gall bladder or the duct with the intestinal canal.

7. The duodenum affords most favorable conditions for this connection, a coil of small intestine comes next in its advantage, and the colon presents least benefits, as it fails to obtain the good effects of the bile for intestinal digestion.

8. The anastomosis of the biliary system with the alimentary canal may be accomplished by different processes, and the selection of the mode best adapted to the case may be left to the choice of the operator.

9. Permanent occlusion of the common duct associated with a patulous cystic duct is the only condition in which cholecystenterostomy is indicated, and for this condition of things it may be considered a radical mode of relief.

10. While a fistulous communication of the gall-bladder or common duct with the alimentary canal is a safe and efficacious mode of relief for all ordinary results of occlusion it does not afford exemption from the consequences of malignant growth, and hence this kind of obstruction is not included in this paper.

*Abstract of paper read before the American Surgical Association, April 20, 1898, at the New Orleans meeting.

TROUBLES CAUSED BY ADENOID VEGETATIONS IN THE ADOLESCENT AND ADULT.

M. Bonait invites our attention to the occasional existence of very troublesome adenoid hypertrophy in the post-nasal structures of the adult. He notes that in the child an examination is generally insisted on and the parts promptly treated. With Raulin, Luc and Dubief he admits that in many there is a tendency to spontaneous resorption between the ages of 15 and 20 years. Yet he maintains that adenoid hypertrophy is in some persistent, and is comparatively frequent in those of adult years.

One reason why it is quite commonly overlooked in adults is because of the greater difficulty in diagnosis, as with the infant the simple touch is quite ample, while with the adult the mirror must be used, and

sometimes proper inspection is impossible without the employment of anesthetics in raising the velum.

In the adult the respiratory disturbance, so marked in the child, is not so urgent and is of secondary importance. But, as Raulin observes, these vegetations may determine in some instances respiratory insufficiency, a tumefaction of the pituitary membrane, a chronic rhinitis and pseudo-hypertrophy.

These symptoms habitually disappear on the ablation of the hypertrophied tissue.

The trouble succeeding this condition in the adult may be divided into two categories; the first is impediment to respiration and proper ventilation of the typanic cavity; possibly inflammation communicated to the middle ear or tuberculosis from the infected atrium to the cephalic membranes.

Secondly, troubles indirect or reflex, involving contiguous or remote parts. We will note cephalalgia, neuralgia, spasmodic astridulous laryngitis, troubles in phonation and articulation, nocturnal incontinence, epileptic attacks, etc.

When these troubles depend on adenoids in the adults complete erasion of them provides immediate and permanent relief.

Bonait affirms that since he has instituted regular examinations of adults with various vague symptoms he has been surprised with the considerable number who suffer from untreated adenoids.

As to treatment, he observes that in these chronic cases we will often discover marked tissue changes, in some instances the mass blocking up the pharynx, having a tough fibrous consistence and requiring to be completely cleared away by the use of a sharp, strong curette.

Note.—It is something most extraordinary what marvelous and substantial progress has been made in the past score of years in the treatment of naso-pharyngeal maladies, a class of cases which in the near past the traveling quack fattened on. But the light of science has been let on, and now in no department of the healing art has greater progress been made than in naso-pharyngeal surgery. Cocaine has rendered possible and safe many operations in the pharyngeal vault heretofore quite impossible. All these operations are attended with a large hemorrhage during manipulation. Since pulmonary anesthetics have been set aside and the local analgesics substituted septic pneumonia from inspiration of septic blood is obviated. T. H. M.

POST-OPERATIVE PSYCHOSES.

M. Segond declared that it was sometimes difficult to differentiate after operations whether the psychoses which will follow are dependent on pre-existing conditions or the effects resulting from other narcosis and division of the tissues. He examined 642 patients in whom he had artificially produced the menopause, among whom there were only four who suffered from mental disorder, and two of these were pronounced hysterics before operation.

M. Regnier believed in certain sensitive persons the terror provoked by the approaching operation was a powerful predisposing factor. In all cases it is well to examine into the antecedent mental state, and when there is evidence of marked psychoses we may yet operate.

Mr. Monod saw a woman of 49 years on whom he had performed a complete hysterectomy for fibroids, in whom six months later violent insanity developed. There was no antecedent history here and he was forced to the conclusion that this state was dependent on changes occurring at the menopause.

—Jour. Des. Prac., April, '98.

MALIGNANT FIBRO-CYST OF THE UTERUS.

Vitrag concludes a paper on non-epithelial malignant tumors of the uterus as follows: Certain neoplasms which originate in the connective or muscular tissue of the uterus, usually described as sarcomata, are really fibromata or myomata. By reason of their embryonic character these are, however, to be regarded as malignant. The neoplastic elements develop around the vessels and in their walls, in the connective tissue, hence the tumors are to be regarded as fibromata.

As these growths are prone to cystic degeneration, the writer suggests for them the name "malignant polycystic fibroma."

—Annales de Gynecologie et d'Obstetrique, January, 1898.

METHODS OF OPERATION FOR CARCINOMA OF THE RECTUM.

Of late years, the sacral method of operation has almost replaced that of the perineal. The number of cases radically operated upon relative to those by the palliative method, increased as follows: 1877-82, radical 26, palliative 14; 1886-91, radical 68, palliative 8. It is to be considered contra-indication when the tumor overlaps (Uebergriff) the bladder, or when the upper end of the tumor is felt, bimanually, to be immovable from over the symphysis. The sacral method is chosen when the tumor reaches high up over the sphincter, or when the sphincter can be maintained, or when much bleeding is to be feared. If, by the maintenance of the sphincter, the tension is strong in the union of both ends (Darmenden), then is the sphincter split in the posterior middle line, and the two halves united with the upper portion (Darmstick), in order to paralyze, for some time, the sphincter. The temporary resection of the os sacrum in the above cases, was not attempted because of the difficult nature of the wound, the danger of necrosis of the bone and the impossibility of allaying or preventing a sacral suppuration. There are 28 of these cases still living—18 sacral, 10 perineal. Continence was effected by the sacral method where it was possible to use the circular intestine needle (Darmnaht); relative continence was mostly attained by the perineal method; complete incontinence was the consequence of the sacral suppuration.

—Centralblatt fur Chirurgie.

THE SURGEON AND THE ALIMENTARY CANAL.

Under this head the Boston Medical and Surgical Journal has the following suggestive note: Close upon the announcement that Schlatter has removed successfully the entire stomach comes the report of the removal of about half the large intestine by Frederick Treves. We have not yet learned of the successful removal of the entire small intestine, but have no doubt that it will be performed in due time. Where both ends of a citadel have been taken it is certainly reasonable to suppose that the centre may be captured, if the attack is vigorously kept up.

PRIMARY TUBERCULOSIS OF THE RECTUM.

Dr. L. Straus reaches the following conclusions regarding this subject (Matthews' Quart. Jour. of Rec. and Gast.-Intest. Dis., Jan., 1898):

1. Primary tuberculosis of the rectum is not so infrequent as some of the leading authorities have taught.

2. It is a surgical disease; as much so as is appendicitis.

3. It is not and cannot be diagnosed by the clinical symptoms as given by the various writers on diseases of the rectum.

4. The only scientific and correct way of making a diagnosis is by the use of the microscope.

5. By thorough curettement or excision, or both, together with cautery, it is not only cured, but remains cured much more often than is dreamed of; certainly more often than the teaching of the authorities would have us believe.

6. Some of the apparently most hopeless cases are cured by repeated operations.

7. All suspicious cases should be submitted for microscopical exam-

ination, for the reason it is the only scientific method of reaching a diagnosis.

8. Local treatment is not equal to curing these cases; permanent results are to be had by a radical destruction of diseased tissue or the habitat of tubercle bacilli.

9. These cases are and have been cured, and sufficient time has elapsed for us to conclude that they will remain cured.

10. Early and repeated operations, if need be, are imperative, if these cases are to be permanently cured.

THE OPERATIVE TREATMENT OF GOITRE.

Wormser, who has had much experience of the operative treatment of goitre in Kocher's clinic at Berne, is of opinion that the possible mishaps of thyroidectomy are not so serious as to counterbalance the many advantages of this method, whilst on the other hand strumectomy or intraglandular enucleation is too rarely indicated to claim recognition as a regular operation. Thyroidectomy as now performed by Kocher permits the surgeon to establish a complete hemostasis, to avoid any injury to the recurrent nerves and to preserve a part of the normal glandular structure if such should persist at the time of operation. This operation, it is held, affords the best conditions for immediate healing, causes very little disfigurement and renders impossible any local relapse of the disease. In strumectomy the loss of blood is usually abundant, and often very serious, and there is a risk of secondary hemorrhage. As the wound is deep and irregular, surrounded by torn thyroid tissue, and occupied by blood, there is a greater risk after enucleation of infective disorders. Moreover, as has been proved by statistics, relapses are much more frequent after this operation, the author states, is indicated in cases of (1) malignant tumor of the thyroid gland, (2) acute and chronic strumitis, (3) parenchymatous goitre —diffuse hypertrophy of the gland, (4) polycystic goitre, and (5) goitre with disseminated foci. It is contra-indicated in cases in which no normal thyroid tissue is left. Strumectomy may be practiced in cases of (1) unilocular cystic goitre, (2) isolated nodules enclosed in normal tissue, if such can be removed rapidly and without much bleeding; (3) large morbid deposits existing in immovable goitres.

—Rev. de Chir., April, 1898.

ABDOMINAL INCISIONS.

Woolsey concludes that (1) abdominal incisions, except those in or close to the median line, should be obliquely transverse in order to run parallel to the nerves (and thereby also to the cleavage lines of the skin), so as to avoid partial paralysis of the muscles, weakness of the abdominal wall and a tendency to hernia; (2) intermuscular, or even transmuscular, incisions should be preferred to those in the linea alba or semilunaris, for in both the latter cases the cicatrix is less strong and more prone to hernia, and in the semilunar line the nerves are necessarily divided, (3) in place of the median vertical incision the intermuscular incision near the inner margin of the rectus, or a "trap door" incision around this inner margin offers many important advantages.

—Annals of Surgery, January, 1898.

OPERATIONS ON THE STOMACH.

Carle and Fantino publish a first installment of considerations upon 102 operations upon the stomach performed by them in the last few years. In the present number they deal with 83 operations upon the pylorus; of these 44 were cases of non-malignant pyloric stenosis. The authors deal at some length with the bad effects resulting from prolonged retention of food in the stomach, and point out that this of itself may be a cause of hyperchloridria. The few cases of pyloric stricture where hypochlorhydria or anachlorhydria was present could be explained in other ways. Excess of acid does not hinder fermentation, but may increase it by delaying the digestion of amylaceous food. Of the 44 non-malignant strictures 30 were cicatricial, nine spas-

modic, three due to gastric atony and two to stricture of the duodenum. In four cases cicatricial contraction of the pylorus followed very soon after the swallowing of corrosive acids. The position of the cicatrix here is explained by the fact that when the stomach is empty and retracted the pylorus is the lowest point, the lesser curvature being nearly vertical. In eight cases where there were unmistakable signs of previous ulcer hematemesis had occurred only three times. There was evidence of peripyloritis in 19 out of the 44 cases. This strengthens the author's view that spasm of the pylorus is due to some local alteration of the mucous membrane—for example, anal fissure. As regards operative treatment, 27 were treated with gastro-enterostomy, three by digital divulsion, and 14 by pyloroplasty. There is a full discussion as to the relative value of anterior or posterior gastro-enterostomy, with a decided opinion in favor of the latter method.

—Il. Policlinico, March 15, 1898.

THE SURGICAL TREATMENT OF TUMORS OF THE LARGE INTESTINE.

In operating upon tumors of the large intestine Vautrin (Rev. de Chir., 1897, No. 11) believes the operation of choice to be resection, without fixation of the intestine to the abdominal parietes. The resection of the intestine should be accomplished by the thermo-cautery, while the mesentery should be cut with the scissors, the arteries being caught up by forceps as soon as they are cut. The ligature en masse of the mesentery predisposes to subsequent sloughing and interferes with union, especially in the large intestine. The enterorrhaphy should be performed by using two layers of whipped suture, fixed by a backstitch at every centimetre. The first suture is sero-mucous, the second sero-serous. This suture is very rapid and certain and is preferable to plates or buttons.

The anus contra-nature should be reserved for cases of extreme urgency, where acute symptoms demand immediate interference. The resection should be performed secondarily, after the acute symptoms have subsided.

When the tumor is inoperable entero-anastomosis should be performed, wherever it is possible, with exclusion of the involved area. The author would not recommend the employment of the Murphy button in these operations, as the lumen of the button, even the largest size, is too small compared with the calibre of the intestine. He has seen it occluded.

Resection is most commonly employed in resections of the ascending and descending colon, while entero-anastomosis, with exclusion of the affected part, is more common in the transverse colon.

In tumors of small volume the loop of bowel containing the tumor may be drawn outside the abdomen, the intestine fixed in the wound and the tumor later resected; this is followed by a later operation for the cure of the artificial anus.

APENTA WATER IN THE TREATMENT OF OBESITY.

The Berliner klinische Wochenschrift for March 22, 1897, speaking of some experiments made under Professor Gerhardt's direction in the Charite Hospital as to the value of Apenta water in the treatment of obesity, says that such experiments could not be carried out until quite recently, on account of the inconsistent composition of the bitter waters coming into the market. In this respect, the Apenta water is favorably circumstanced, and it was chosen for these observations because of its constancy of composition. The conclusions arrived at as to the value of Apenta in the treatment of obesity, and as to its influence on tissue-change, were that it succeeded in producing a reduction of fat in the body without detriment to the existing albumin, and that the general health of the patient suffered in no wise, and the cure ran its course in a satisfactory manner.

PEDIATRICS.

In Charge of Dr. L. Fischer.

XEROSE-BACILLI OF THE CONJUNCTIVA AND THE PSEUDO-DIPHTHERIA BACILLUS.

Axenfeld (Berlin Clin. Weekly, February 28, 1898.) reports a series of experiments made with the xerose-bacilli of the conjunctiva, and with the Hoffman-Loeffler pseudo-diphtherit bacillus of the pharynx.

CULTURE MEDIUM.	XEROSE BACILLI	HOFFMAN-LOEFFLER PSEUDO-DIPHTERIA BACILLI
ON AGAR	Very sparingly, slow growth, not seen plainly until the third or fourth day; pale, dry, hard, detachable colonies	Very rapid growth, moist, shiny, whitish colonies, easily detachable.
ON GELATINE	No growth 18 c.	Profuse growth at 18 c.
BOUILLON	Remains clear, small fine flakes on the walls and the bottom of the agar. Alkalescence not increased.	Rapid turbidity, large slimy sediment, increased alkalescence.
BLOOD SERUM	More growth than on agar, but slow, drier colonies.	More profuse and moist growth, but slower than diphtheria bacilli.

This author answers a paper of Dr. Schanz, published in the Berlin Clin. Weekly, No. 50, 1897, entitled the "Differential Diagnosis of the Diphtheria Bacillus."

According to Axenfeld the normal conjunctiva is covered with bacilli resembling the diphtheria bacillus. This fact can be easily demonstrated by anyone versed in the method and examination of blood serum.

Fick and Michel, in describing these germs, call them "Luft-Staebchen." This name is given to this rod-shaped bacilli because of their frequent occurrence in the air, as demonstrated by the large numbers usually obtainable from most people's conjunctiva.

In detailing the possible origin of this bacillus he refers to the fact that the Ductus-Nasolacrimalis is in constant communication between the conjunctiva and the naso-pharynx. Furthermore, that the same germ frequently causes questions of diagnosis, whether found in the pharynx or in the conjunctiva.

Schanz identifies this bacilli as the same, and believes the xerose bacilli and the Hoffmann-Loeffler pseudo-diphtheria bacilli to be identical.

Loeffler has doubted this identity, and so has Escherich, in his monograph on the "Etiology and Pathogenesis of Epidemic Diphtheria."

Axenfeld (Vienna, 1894, page 190) has examined over 200 specimens found in the normal, catarrhal and xerotic conjunctiva.

The above cited facts refer to 90 per cent. of forms found on the conjunctiva. In rarer cases, only four times observed by this author in children one year old suffering with kerato-conjunctivitis; one case of conjunctiva crouposo; one case of dakryostenosis, which resembled the Hoffmann-Loeffler pseudo-diphtheria bacillus of the pharynx.

Such cases have already been reported by Kuschbert and Neisser.

In cases of xerosis it has not been possible, according to the investigations made by this author, to transform the one germ into the other by increasing the length of the time of their growth, so that he can, from his investigations, call this second microorganism identical. L. F.

Correspondence.

STATISTICS OF ABDOMINAL SECTION IN AMERICA.

195 Newhall street, Birmingham,
14th December, 1897.

Sir:—I have just had sent to me a copy of the 41st annual report of the Hospital for Women in New York, containing an address by Dr. T. Gaillard Thomas, the greater part of which purports to answer some animadversions which are alleged to have been made concerning the results of the work in that institution. At the conclusion he puts to the critics Shylock's question, "Are you answered?"

I have not been one of the critics, and only because the facts never came under my notice; but on their behalf, and on behalf of suffering humanity, I say to Dr. Thomas that they are not answered, but that, on the contrary, he makes out a most deplorable state of matters.

He puts forward a group of figures which show that in seven large selected hospitals in America the results of abdominal section run from 25 per cent. in Boston City Hospital down to 15.03 per cent. in his own institution. Of this collection of statistics I have only two things to say, that the whole thing is deplorable, and must be remedied; and that the mortality in the New York's Women's Hospital is "murderous," as Mathews Duncan used to put it.

He certainly does not make the matter any better by pointing out that during a period of 13 years the mortality of his hospital has been 22.43 per cent., and that this triumphant result has been due to the introduction of "antisepsis, the sheet anchor of the surgeon." This makes me more than ever thankful that I discovered the fallacy of this so-called antiseptic craze early in my career.

I inclose with this letter a copy of the 23d annual report of the Birmingham and Midland Hospital for Women for 1893; and I select this year for three reasons. The first is that it was the first year in which no work was done by myself, and the bulk of it was done by two of my former assistants, and because it was an exceptionally bad year.

As to the statistics themselves, let me say that, like those of the New York Hospital for Women, in Dr. Thomas' own words, "the surgical staff of this hospital has absolutely nothing to do with the making of its statistics." Each case is entered by an officer responsible to the lay committee, and each fatal case is investigated by a special pathologist altogether independent of the operating staff. At the end of each year each operator has to defend his facts before his colleagues on a committee upon which also sit the chairman and secretary of the managing committee, and a perfect audit is made and signed. This document is published, with a table upon which every case is entered under the distinguishing initial of its own surgeon, and with such details that any case can be easily identified. Any cooking of the statistics is an absolute impossibility, and only the most trivial errors have ever been detected.

In 1893 the abdominal sections

numbered 176 (against 153 in New York of 1894), with a mortality of 6.2, against 15.03 in the New York Women's Hospital.

Another table is given of 1350 cases of abdominal section performed almost entirely by Dr. Savage and myself from 1884 to 1893, with 75 deaths, a mortality of 5.5 per cent.

During these years I did all my work on plain soap and water, having abandoned every trace of the varying absurdities of Listerism two years before. Dr. Savage followed Lister in fashion of his own, varying from time to time. The work was fairly well divided between us, as also was the mortality; and, with the most careful reckoning of the figures, the verdict against Listerism must be, in Scotch fashion, "not proven," for, with its complete absence, my results were no worse and, with its partial presence, Dr. Savage was no better.

What can Dr. Thomas have to say to this?

I have only to say that his results show that there is something radically wrong with his hospital, and that the medical profession of America, advancing, as it is, beyond the progress of our art in all other countries, cannot afford to let matters go on as they are.

If I may answer in one word the question which will of course follow what I have said, what is the cause of your success? I say emphatically, the absolute segregation of our patients and close attention to every detail constitute the whole of the mystery.

That there is an inevitable mortality in abdominal section I think is certain. That two men working in the same place, with the same material, should bring it down during 10 years to 5.5 per cent. in a continuous consecutive series of 1350 cases shows that the inevitable mortality is pretty nearly reached. That a removable mortality of more than three times that amount should be allowed to remain as the minimum to be reached in America cannot be admitted for a moment.

That even the low mortality we have had in Birmingham is probably not the inevitable mortality is, I think, almost proved by a little figure twisting; for if we take out four bad years, 1884, 1889, 1890 and 1893, we find 553 cases with a mortality of 8.5 per cent. But in six good years, 1885, 1886, 1887, 1888, 1891 and 1892, we had 797 cases with a mortality of 3.5 per cent. I think this latter is nearer the inevitable, and that a higher mortality than that is due to causes entirely removable. All such causes ought to be earnestly sought for, and removed at any cost. I am, yours truly,

LAWSON TAIT.

To John E. Parsons, President of Board of Governors, Women's Hospital, New York.

Current Medical Literature.

THE ATTITUDE OF THE PROFESSION TO CYCLING.

It is probably a fact that previous to the advent of the safety there had never been a form of outdoor exercise so permanently popular, and withal so beneficial to urban and suburban dwellers as cycling. It is true that it would be possible for the anatomist and physiologist to devise a system which might distribute muscular activity more evenly throughout the body than is done in riding the wheel; but, hygienically considered, the advantages of the former over the latter form of exercise are vastly outweighed by other considerations.

It is difficult to over-estimate the influence of the mental state in its relation to the performance of the several bodily functions. For instance, substances very indigestible artificially may be eaten with impunity if relished, while foods most easily digested in the laboratory may be promptly rejected when taken into the stomach if they are in any way distasteful. A similar analogy holds in regard to bodily exercise.

Congenial companionship, an ever-changing scene, a delightful sense of autopropulsion are some of the common mental accompaniments of cycling which have to be taken into account when an attempt is made to estimate the value of this form of exercise. In fact, in cycling the actual use of the muscles may almost be regarded as an incident subordinate to the many agreeable mental impressions. Aside from the criticism that it may be indulged in to excess —and this may be said of all good things—about the only serious objection that can be made to wheeling has reference to the kind of saddle used. While it is true that many young people can ride almost any form of saddle without experiencing any very immediately alarming symptoms, they may at the same time be doing themselves an irreparable injury. With some young, and nearly all older people, however, the case is different, because they not only rest a greater proportion of their weight upon the saddle, but the parts exposed to pressure by a faulty saddle—the prostate gland and prostatic urethra—are so sensitive than pain and serious injury may occur only too promptly. In growing boys it is, of course, obvious that the parts should not be exposed to pressure or irritation. In girls different, but scarcely less serious results, may follow, inasmuch as pressure or irritation of the external genitals may inaugurate the habit of masturbation.

The foregoing considerations constitute by no means all the reasons, but reasons enough, why physicians should carefully investigate the saddle question to the end that their patrons may avoid possible grievous injury.

GUAIACOL CARBONATE IN RHEUMATOID ARTHRITIS.

Gilbert A. Bannatyne, M. D., M. R. C. P., Ed., Hon. Physician to the Royal Mineral Hospital and to the Royal United Hospital, Bath, in an article, entitled "The Treatment of Rheumatoid Arthritis," says in the Edinburgh Medical Journal, January, 1898, as follows:

"Believing that the disease was due to a micro-organism, the nature of which was described in the "Lancet," April, 1896, I was led to employ the guaiacol carbonate on account of its high eliminative powers. I believe the guaiacol carbonate to act locally on the alimentary canal before absorption, and afterwards, by favoring the elimination of the toxic albumins with which it combines. I give guaiacol carbonate in doses of 5 to 15 grains, three times a day, rapidly increased to six times, when its effect is soon marked. I also apply pure guaiacol in equal proportion with olive oil, painted on the affected joints nightly.

Under this treatment I have seen rapid subsidence of symptoms and subsequent complete restoration to health, even in extremely severe cases."

EUCAINE "B."

By Professor Reclus.

At about this time last year I communicated to this body in my own name, and in that of our colleague, Professor Pouchet, the results of our experiments with Eucaine.

In February, 1897, Dr. Silex, of Berlin, brought forward a new substance, which he designated Eucaine "B," to distinguish it from the first product, which was henceforth to be known as Eucaine "A." This new anesthetic is a chlorhydrate of benzoylvinydiacetonalkamin, and has been studied in France by Professor Schmidt, of Nancy; by Dr. Dolbeau and by his chief, Dr. Panas. The latter will perhaps tell us concerning the value of this substance in ophthalmology. I myself have been experimenting with Eucaine "B" in conjunction with my pupil, Dr. Legrand, for the last six months; and it is the result of our joint labors that I desire to briefly communicate to you to-day.

Eucaine "B" possesses a certain number of undubitable advantages. In the first place, its solution can be boiled without undergoing decomposition, thus permitting it to be sterilized by heat. This cannot be done with cocaine; for, as is well known, at a temperature of 80 degrees C. (176 degrees Fahrenheit) it is transformed into ecgonine, a substance devoid of all analgesic power. In the second place, solutions of Eucaine "B" are stable; and this is the case to such an extent that we have been able, in conjunction with Dr. Legrand, to perform a number of long and delicate operations with solutions that were more than four months old. This is far from being possible with cocaine solutions. They change at the end of four or five days and they can no longer be used by about the fifteenth day. Finally, and this is really the most important point, Eucaine "B" is much less toxic than is cocaine. All experimenters have come to this conclusion. Like Silex and Schmidt, Legrand and Joanin have demonstrated that 8 centigrams (1 1-5 grains) of cocaine per kilogram (2 1-5 pounds) of weight will kill a guinea pig; whilst it takes 30 centigrams (4 5-8 grains) per kilogram (2 1-5 pounds) of Eucaine "B" to have the same effect. The toxicity of Eucaine "B" as compared with that of cocaine is therefore as 1 to 3.75.

Such an advantage is not to be overlooked, and the security which it gives us can readily be seen. Our previous experiments have demonstrated to us that it was not prudent to exceed or even attain a dose of 20 centigrams (3 grains) of a 1-per-cent solution of cocaine; larger doses being liable to cause serious accidents. Eucaine "B" can be used much more freely. The experiments made with guinea pigs seem to show that enormous doses of 50 to 60 centigrams (7 7-10 to 9 1-4 grains) may be administered with impunity to the human subject. Practically we have never employed these colossal doses; nor do we know any operations within the domain of local anesthesia in which such enormous quantities of the anesthetic would be necessary. We have never used more than half of this quantity, 20 to 25 centigrams (3 to 3 7-8 grains) in our operations for the radical cure of hydrocele, and hernia, for our artificial anus operations, our gastrotomies, our anal dilatations, our hemorrhoid opera-

Report made at the Academy of Medicine, Paris, March 29, 1898. (Translated from the Bulletin Medical, No. 26, March 30, 1898.)

tions, and our resections of the scrotum. But, if the cases had required it, we should not have hesitated to give much larger doses.

To administer such doses of 25 and 30 centigrams (3 to 3 7-8 grains) of Eucaine "B" we have changed the method which we have so long followed in the employment of cocaine. All our cocaine solutions have been of the strength of 1 per cent. But, as Eucaine "B" appeared to have a little less analgesic effect than cocaine, and since its toxicity is very much less, we have found it better to employ a 2 per cent. solution. This is active enough to permit us to incise the tissues immediately after the injection of the last syringeful of the solution. With 1 per cent solutions we found it necessary to wait for five minutes until the analgesia was completely established. The 2 per cent. solutions appeared to be quite sufficient for all purposes; and we believe it to be both useless and dangerous to employ the 5 per cent. and 10 per cent. solutions recommended by Schering and Lohmann. Though Eucaine is much less toxic than cocaine, it is still poisonous; and with such exaggerated doses I fear the occurrences of such catastrophes as have unfortunately marked the advent of cocaine. Indeed, it is quite possible that the 10 per cent. solutions that are spoken of are imaginary ones; Silex, and later Legrand and Joanin have fixed the coefficient of solubility of Eucaine "B" in water at 15 degrees C. (59 degrees Fahrenheit) at 5 per cent. How, then, could Lohmann and Schering prepare their 10 per cent. solutions?*

As is seen, we recognize some very marked advantages in Eucaine "B;" but there is one more which we have not yet mentioned. Dentists cannot put their patients to bed; they must, therefore, let them get up and go after the local anesthesia. This practice is not free from danger after cocainization; with the assumption of the erect posture there sometimes appear vertigo, a tendency to syncope, gastric pain and vomiting. We saw such a case only a few days ago. These accidents may be avoided by maintaining the recumbent posture for an hour or two after the operation. But this, which should never be omitted after cocainization, is difficult for the dentists to enforce. If it is true, though we have not yet a sufficiently large number of observations to affirm it positively, that with Eucaine "B" the patient can get up and walk immediately after the operation without any risk, it is evident that this fact alone should cause it to be used instead of cocaine in all dental operations.

Are we, then, now in a position to generalize and proscribe cocaine for the benefit of Eucaine "B" in surgery? I cannot decide to do it, and for the following reasons: In the first place, the analgesic power of cocaine is really a little greater than is that of Eucaine "B." Then again, Eucaine "B," like Eucaine "A," is a vaso-dilator, and the hyperemia of the tissues causes hemorrhages that obscure the field of operation. Finally, 20 to 30 minues after the operation there sometimes appears in the Eucanized wound a very disagreeable smarting, lasting for one or two hours. A number of patients complain of this. These advantages, though of no great importance, as I admit, lead me still to prefer cocaine, which, with the technique that I have employed for the last ten or eleven years, has been used in more than 4000 operations without a single serious accident. This technique, by the way, has lately obtained important adherents in the Germans, Braun and Hackenbruch, who maintain that it is the best that can be employed.

I will end and sum up this communication with the two following propositions: 1. Cocaine, well and prudently administered, seems to us to remain the best anesthetic; 2. Eucaine "B" stands very little behind it, and is to be preferred in dentistry and in such other cases where the

*Ten per cent. solutions can be prepared by simply warming the water, but it should be noted that after cooling a part of the Eucaine "B" will separate. These crystals can be dissolved again by warming the solution without in the slightest degree affecting the action of the solution. Such concentrated solutions remain perfectly clear quite long enough for the completion of an operation. (Note of Schering & Glatz.)

field of operation is extensive, and requires the employment of a large quantity of anesthetic substance. Under these latter circumstances, especially, Eucaine "B," less toxic, has important advantages.

FLEXION OF THE SPINAL CORD INSTEAD OF SUSPENSION IN TABES.

Eulenburg rather ridicules re-educating appliances, and advocates strongly the new substitute for suspension, stretching the spinal cord by bending the trunk forward at an acute angle with artificial, gradually increasing pressure. The patient sits with outstretched legs on a long, low table. A couple of leather straps are fastened to the edge of the table and pass around the trunk in a figure of eight, crossing in front of the epigastrium and in the rear over the upper dorsal vertebrae. The ends hanging over the shoulders are fastened to a cross-bar, attached by a rope running over a drum, to a turning crank below. Pressure is regulated with a dynamometer. Applied for five minutes or longer, two or three times a week, he has not observed any inconveniences in his four months' experience. It seems to be supported by the patients much better than suspension. The benefit was evident in the improvement in the ataxia, and the disappearance of the lancinating pain, etc.

—Deuts. Med. Woch., February 3.

MUCO-MEMBRANOUS ENTERO-COLITIS.

(Langenhagen, Sem. Medicale, January 5, 1898).—The three chief symptoms of this disease are excretion of glairy false membranes, irregularity in the action of the bowels and abdominal pain. The most characteristic of these is the presence in the motions of mucous, glairy, or membranous material. It may be seen in the form of fine threads, somewhat resembling coagulated egg albumen, or as actual false membranes forming exact casts of the inner surface of the bowel. These casts are usually broken up, and, on superficial examination, are liable to be mistaken for intestinal worms. Chemically they give the reactions of mucus, not of fibrin, and consequently are evidence of a moderate degree of inflammation of the mucous surface; the large intestine alone is affected. They contain many bacteria, chiefly the B. communis coli. Constipation is an obstinate symptom and generally precedes the mucous colitis; the motions are hard, seldom evacuated spontaneously, are enveloped in membrane and are often streaked with blood. Hemorrhoids are frequent. In some cases constipation persists, in others it alternates with diarrhœa, the loose stools containing scybala. Pain is always present, but is very variable in character and seat. There may be true colic relieved by the passage of the stool, or we may find, after prolonged constipation, acute attacks of pain, with signs of peritonitis: abdominal distension and tenderness, intolerance of food; no fever is, however, present. In a considerable number of cases enteroptosis exists; in others, reflex disturbances (defective secretion of bile, asthma, cardiac irregularity, flushings and pallor, syncope) are met with. Most of the described cases of intestinal lithiasis have been combined with membranous colitis. The patients become chachectic; the disease is chronic, but rarely fatal. It is twice as common in women as in men. The diet should consist of milk, farinaceous material, eggs, boiled fish and chopped roasted meat; vegetables, fruits and bread should be taken sparingly. Alcohol is to be avoided. A daily movement of the bowels should be secured by the use of castor oil, salines, or cascara. Lavage of the intestine with antiseptics (boric acid) and astringents (silver nitrate, ichthyol and bismuth) should be tried. The neurasthenia so often present needs the usual remedies. An abdominal belt should be worn.

—The Scottish Med. and Surg. Jour., April, '98.

A RAPID METHOD OF IDENTIFYING THE PLAGUE OF BACILLUS.

Hankin and Leumann record a rapid means of distinguishing this bacillus with certainty. It has long been known that the organism in old agar cultures gives rise to peculiar involution forms, which resemble torulae in appearance, and cannot be mistaken for any other microbe. Some of these forms having been found in brine from the neighborhood of an infected village, it occurred to the authors to see if they could not be rapidly produced by growing normal plague bacilli on salted agar. This was found to be the case, and the microbe can be recognized within 24 hours of its inoculation on agar containing 2.5 to 3.5 per cent. of salt, the culture being kept at a temperature of 37 degrees C. At first no obvious growth occurs, but at the end of the time mentioned huge spheres and pear-shaped bodies are seen, which are quite unmistakable. The exact proportion of salt required varies with the nutrient value of the agar employed. In applying the test to the detection of plague bacilli in the blood of animals dead of the disease, it is best to make a culture first on ordinary agar, and then to subcultivate on salted agar.

—Centralbl. f. Bakter, xxii, 16 and 17.

HINTS IN THE TREATMENT OF SUBINVOLUTION.

Among the conditions concerned in the causation of uterine diseases subinvolution is one of the most frequent and important. The reason for this is obvious; if after childbirth or miscarriage the uterus does not undergo completely the normal retrograde process, if it remains enlarged, engorged with a hypertrophied mucous membrane, inflammatory changes are readily developed, and endometritis, displacements and serious pelvic disease may result. One of the chief obstacles to efficient local medication has been the lack of a topical remedy which could be safely entrusted to the patient. This want has now been fully supplied in Micajah's Medicated Uterine Wafers. These wafers are cleanly, unirritating, easily applied, and their ingredients exert a depleting effect upon the engorged mucous membrane of the uterus, establishing normal circulation and thereby causing the absorption of exudates into the tissues and aiding the natural process of involution.

PRURITUS VULVAE.

Herman (British Medical Journal, November 20, 1897) makes the following division of cases of pruritus vulvae:

1. Adventitious, due to dirt, pediculi, worms or pessaries.
2. Skin diseases, eczema, herpes or furuncle, follicular, urticarial and diabetic dermatitis.
3. Irritating discharges, such as gonorrhea, cancer, senile endometritis; also cases in which no visible discharge is apparent.
4. Venous congestion, due to heart, liver and lung diseases.
5. Nervous affections.

For each division the following treatment is recommended:

1. White precipitate ointment for pediculi. For the other causes, absolute cleanliness and changing of the material of pessaries.
2. For eczema (usually affecting fat, elderly women and those pregnant), when due to pruritic organisms, warm hip baths, with liquor carboni detergens added, and the parts powdered with boric acid. When due to diabetes, general treatment. Herpes zoster did not respond to treatment. For follicular pruritis it is recommended to squeeze out the contents of follicles and apply corrosive sublimate, 1 to 2000.
3. Antiseptic and sedative douches and sedative dusting powders on the vulva, as a saturated solution of borax and solution of boric acid. In case of failure with these try a one to seven solution of carbolic acid.
4. The same local treatment as for class with general constituional treatment.
5. Pruritus, when occurring in aged women, is frequently a symptom of degenerate changes, and treatment usually fails.

EMBALMING CRUSHED MEMBERS.

A woman eight and a half months pregnant had her hand crushed in machinery. For several days the hand was plunged for hours at a time in phenicated and disinfected hot water. Then a few whiffs of chloroform were given and the toilet of the hand accomplished with quantities of very hot water and solutions of sublimate and potassium permanganate, removing the loose projecting fragments of bone. Small squares of soft gauze impregnated with a polyantiseptic salve were carefully fitted into every crevice, covering the hand entirely, and the dressing completed with a thick layer of cotton and a tight, compressing bandage outside of all to secure anastomosis of the vessels. She then left for a maternity, where she underwent a normal confinement. The embalming dressings were not touched for three weeks, and when removed, under a thick layer of fetid, chocolate-colored fluid the wounded surface was found covered with healthy granulations, with the necrosed parts entirely eliminated. An autoplastic operation was performed a week later, which healed rapidly.

—Jour. des Scien. Med. de Lille, Dec. 25, '97.

THE USE OF THE HIGH FORCEPS.

Toth deals with this question, with special reference to the contracted pelvis. He refers to the different fashions that prevail as to the use of the forceps, the frequency in head presentations varying from one or two to 11 or 12 per cent. In Buda-Pesth, among 7775 births in 15 years, the forceps was used 155 times; that is in 1.9 per cent. of the cases. Forty-four cases of high forceps came under the author's observation, falling into three groups, (1) with normal pelvis, 10 cases; (2) with contracted pelvis, 24 cases; (3) unsuccessful applications followed by craniotomy, 10 cases. In the first group the indications were uterine inertia, protracted second stage, with danger to mother or child, undue stretching of the lower uterine segment, with risk of rupture of the uterus; seven of the children were saved, two of the others weighed 11 3-4 pounds and 12 3-4 pounds respectively. In the second group 21 children were saved and 23 mothers. In the third group perforation was performed in the living child seven times, and on the dead child three times. One mother died of rupture of the uterus and peritonitis. In this case the assistant, contrary to the practice in vogue at the clinic, turned after the high forceps had failed and then had to perforate the after-coming head. The indications were: Delayed dilatation and failure of the head to engage, two cases; threatened uterine rupture from undue stretching of the lower uterine segment, seven cases; embarassed breathing, with severe nephritis, one case. After quoting and comparing many statistics the author sums up in the following conclusions: (1) The use of the high forceps is not so dangerous, either for the mother or for the child, as is commonly supposed; on the contrary, it gives undeniably better results for both than turning, especially from a head to a foot presentation. (2) In general, where labors must be terminated in the interest of the mother, then, if conditions are no longer applicable for turning, the high forceps should be tried before perforation of the living child is resorted to. (3) In cases of generally contracted pelves of the first and second degrees, where the narrowing affects especially the upper straits, the high forceps should have the preference over turning after a due period of waiting has shown that a spontaneous termination of labor is still possible. The same principle should guide us in those cases where the disproportion is due to a relatively large child, while the pelvis is of normal size. (4) In case where the high forceps has failed further waiting is not permissible, but perforation must at once be resorted to. Under favorable circumstances symphysiotomy may be considered as an alternative, but turning (into a foot presentation) is contraindicated, and must be decisively rejected. (5) The high forceps operation can be performed with any instruments of convenient length, but the author has been repeatedly

convinced of the superiority of Tarnier's axis traction over other high forceps.

—Arch. f. Gyn., Vol. lv, part 1, 1898.

TO THE MEDICAL PROFESSION.

It has been intimated that maliciously disposed dealers when interviewing the medical profession have stated that Gude's Pepto-Mangan is placarded on walls, fences, etc. The intention of such an assertion is evident, and is false in every particular.

There is a sign advertising company in this city whose line of work is in that direction, being of the same name, "Gude." They place their name in bold letters, and a passing glance might create the impression that Gude's Pepto-Mangan was being so advertised. This is positively not so.

We have been before the medical profession of this country for upwards of seven years, and have endeavored to conduct our business in the highest ethical manner. The following clause in our contract with Dr. A. Gude & Co., chemists, Leipsig, covers the ground thoroughly:

Section 9. And it is further agreed between Dr. A. Gude & Co., party of the first part, and M. J. Breitenbach Co., party of the second part, that if at any time the said M. J. Breitenbach Co. should by device or by advertising attempt to increase their business in Gude's Pepto-Mangan other than through the recognized channels to the medical profession, then in such event this contract is to become null and void, and all rights of the M. J. Breitenbach Co. existing under this instrument immediately become the property of said Dr. A. Gude & Co., without recourse to law. Respectfully, M. J. Breitenbach Co., per B. Weitenball, 56-58 Warren street, New York City.

MALNUTRITION.

The importance of a reliable pharmaceutical preparation which will do substantial service in this connection is freely admitted.

Malnutrition and stomachic derangements are the prime cause of so many disorders that these conditions have become a matter of serious interest to the general practitioner.

The positive aid and results obtainable from "Gray's Glycerine Tonic Compound" are largely due to its finished and unalterable character as a reconstructive tonic. It undergoes no organic or chemical change, and the harmonious action of each ingredient is assured, an important and unusual feature, and essential to accomplish the results desired.

It neutralizes stomachic acidity, checks fermentation, promotes appetite, increases assimilation and does not constipate. It is prompt and reliable in its action and does not over stimulate or produce stomachic congestion, a common fault of many so-called tonics. It is also pleasant to the taste and acceptable alike to all ages and to sensitive persons, and causes no unpleasant reaction whatever. The Purdue Frederick Co., sole proprietors, No. 52 West Broadway, New York City.

ACCESSORY SUPRARENAL CAPSULES NEAR OVARY.

Gottschalk in removing a pair of diseased appendages discovered accessory "adrenal" bodies in the infundibulo-pelvic ligament close to one of the ovaries. He reports the case as adding a fifth to the four already published of accessory suprarenal capsules detected in the pelvis.

—Centralb. f. Gynak., No. 15, 1898.

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Original

THE DIETETIC AND MEDICINAL TREATMENT OF TYPHOID FEVER IN CHILDREN.

BY LOUIS FISCHER, M. D.

Professor of Diseases of Children at New York Clincal School of Medicine.

My first paper on this subject was published in the New York Medical Record in December, 1897. In it I gave a series of clinical experiences with this form of modified milk, as suggested by Professor Gaertner, of Vienna. My experience was gained in the course of the hot summer months, at a time when only the best form of food can be assimilated. I need not recall the experiences of each and every physician who handles a large number of infantile disorders, especially those classed under the heading of "cholera infantum." The old rule of "stop all milk and merely give the stomach a rest for a short time, and then cleanse the alimentary tract by lavage" still holds good. At the same time we have frequently found a series of cases that died of inanition, as well as from practical exhaustion, owing to a lowered vitality from having the food stopped. When milk was again resumed, in one-half our cases we usually found the same clinical picture presented as that one previous to the discontinuance of the milk. In other words, the former vomiting and diarrhea and all further gastric disturbances reappeared when former methods of feeding were resumed.

We in a large city have to contend with a great many elements embodied in the words, "poor hygiene." To attempt to describe the homes of the majority of children suffering from gastro-intestinal trouble in our city would be needless. Suffice it to say that the over-crowding in apartments, with consequent poor ventila-

tion and last but not least, improper food, it is no wonder that these children are sick. The wonder is rather that so many recover.

Permit me now to invite your attention to the following series of cases in which this new form of food has been given a careful trial:

A female child was brought to the children's department of the German Poliklinik, with a history of having high fever, intense thirst, loss of appetite, being very restless and tired, and a desire to sleep most of the time.

On questioning the child she complained of a severe headache and pains in the abdomen. The child had always been in good health, with the exception of having had the measles three years ago.

The mother further stated that the child had had diarrhea for the last six days, to which latter she attributed the exhausted condition of her child.

The physical examination of the child gave the following status praesens:

A thin, emaciated child, pigeon-breasted, a very high, tympanitic abdomen. The examination of the lungs showed some sonorous and sibilant rales. There was some cough and a slight viscid (mucus) expectoration. The heart sounds were feeble, but no murmurs were audible, although a slight blowing (anemic) murmur could be heard in the carotid artery of the neck. The liver was apparently normal. The stomach seemed tender on palpation and was quite distended with gas. The spleen was very much enlarged and could be easily mapped out by both palpation and percussion; it was also very sensitive on pressure. There was distinct gurgling in the ileo-cecal region. The child had from six to seven evacuations from the bowels during the day and equally as many during the night. The mother said that the child had had 15 stools in 24 hours. The urine was scanty, high-colored, contained an excess of phosphates, no albumen, no casts and gave a sulpho-diazo-benzol reaction. The skin showed one small lenticular-shaped rose-colored spot at the umbilicus. The pupils responded to light; no ophthalmoscopic examination was made. The temperature taken in the rectum was 103 degrees at 2 P. M. The pulse was 120; dicrotic in character.

The diagnosis of typhoid fever was then made. The child was ordered to bed and carefully watched. The temperature at 9 P. M. was 104. There were slight signs of delirium, and the same symptoms as previously reported continued. The child was given cold sponge baths, consisting of equal parts of alcohol and water every hour, the head was shaved, an ice bag applied to the head, one grain of calomel given every two hours, and Gaertner Mother Milk given for both thirst and nourishment, in its natural state, with no dilution.

The following day the child's temperature in the morning was 102 3-5, and rose in the evening until it reached 104. The same treatment was continued, with the exception of giving a gradually cooled bath in the following manner: The child's body was immersed up to its neck in a tub of water at a temperature of 90 degrees, and ice cold water added to it until the temperature of the bath was lowered to 80 degrees. When the temperature of the bath rameined at 80 degrees the child was kept immersed for two minutes longer, so that the duration of the bath was in all about five minutes. These baths were ordered to be given every six hours, and seemed to have a very decided tonic effect on both the heart and nervous system. The temperature after my first bath did not go beyond 102. No antipyretics were given, as I believe they all tend to act as cardiac depressants. An occasional draught of sterilized water, to which was added diluted phosphoric or muriatic acid (10 drops of the latter) to a tumblerful of water, seemed not only to quench the thirst, but also to brighten the little patient. The calomel was continued for two days, was then discontinued for two days, and then one-half the dose previously given was given for two days more, and then discontinued.

The child was under treatment in all about 11 days, when the temper-

ature came down by lysis until it reached normal, where it remained after the eleventh day. It was not necessary to continue the spongings or baths after six days of treatment.

A few interesting points about this case are worth noting:

First. That there were no gastric disturbances during the course of the only food (Gaertner's Fatty Milk) that the child consumed about 40 ounces during the day, and equally as much at night.

Second. The condition of the stools was also worth noting. They were of a greenish yellow, containing very few curds, which curds dissolved easily in alcohol, showing them to be fat and not casein. They were quite evenly divided in the stools, not in large, cheesy lumps.

The above statements apply to the first three days of treatment, whereas, during the last week of treatment this condition changed and the stools were of a more solid constituency, and showed very little or no fat. No unpleasant eructations followed this line of treatment.

A great many more similar cases could be cited, but I do not wish to trespass upon the space of your esteemed journal; but with your permission will quote from a letter received to-day from Professor Escherich, of Gratz, Austria:

In writing to me about the value of Gaertner Milk he states that in order to demonstrate the absolute value of this form of milk it is only necessary to bear in mind that in an experimental examination of my own child we found that 98 per cent. of the fat was utilized, and only the balance 2 per cent. of fat remained in the feces. This shows conclusively how much of the food remains in the body, and the absolute ease with which it is assimilated."

An interesting chart, showing Escherich's success, has recently appeared from the pen of Libman, in the New York Medical Journal, February 26, 1898.

Another equally interesting lettter of several received from Dr. George MacCracken, of Philadelphia, wherein he writes: "What I particularly desire to impress is the use of the fat milk exactly as it comes from the separator in both adults and children, when suffering from gastric and gastro-intestinal disorders and in typhoid fever."

I used it exclusively in typhoid fever for the following reasons:

First. That it quenches the thirst.

Second. It is easy to digest.

Third. It does not produce as much tympanites.

Fourth. That it is relished by the patient, not having the milky taste of whole milk, and containing more food value than diluted milk.

The experience attained by me, I believe, justified the use of this new form of diet in typhoid fever, and I am persuaded that if we can sustain life by a palatable and easily assimilated food, and do not rush haphazard into using stimulants, we can attain the normal standard of health in a scientific manner.

I invariably insist on giving sterilized water, to which the albumen of a raw egg is added. I have also given light broths of beef, veal or mutton. It is absolutely necessary to give these broths only when they are freshly prepared.

The prognosis of our cases of typhoid fever does not, in my opinion, depend on the amount of drugs that we can put into a disordered alimentary canal, but rather on eliminating, by the method above suggested, with calomel, and in addition giving the above diet.

One point more. It is wise to remember, too, that calomel is transformed in the human economy into bichloride of mercury; hence, it is likely that some of the merits of this drug may be attributed to this latter condition. The vital difference between cow's milk and Gaertner's humanized milk consists in the reduction of the excess of casein to one-half the quantity previously contained in cows' milk. The normal percentage of fat is, however, retained, thus giving the milk a fatty appearance, and still have less proteid for digestion.

To this I can attribute, as have also other writers on this subject, its easy assimilation and its high nutritive value.

—187 Second ave., New York City.

A CASE OF FAVUS OF THE NAILS.

BY FRED. J. LEVISEUR, M. D.,
New York.

Favus of the nails is a rare affection, but perhaps not so rare as is stated in most of the text-books, for some cases are possibly not recognized by the physician, or, if recognized, are not reported. It is a priori a surprising fact that the nails escape infection in the majority of cases, though they are continually exposed to contagion through the process of scratching, and the fungus may find an ideal resting place under the free border of the nails. The following case was sent to me by Dr. F. W. Lilienthal, of this city:

Miss K. K., a native of Russia, 17 years old, came to this country 12 years ago. At that time she suffered from an affection of the scalp,



which, according to her own description, was very likely favus. When she was 13 years old her scalp improved very much and was almost well for two years, but got worse again during the last two years. A year ago her nails became affected, starting with the index finger of the left hand. In a short time the disease showed itself on the fourth finger and the thumb of the left hand, and finally on the nail of the fourth finger of the right hand. The nails have the appearance as if a foreign substance had penetrated from the front backward, lifting the nail in an

irregular manner from its bed and turning its horny layer upward. The latter showed no microscopical changes, except a slight change in color. It was easy to scrape away the yellowish brown accumulations, exposing cavities which, on two fingers,reached almost to the root of the nails. Mycelia and spores of the achorion were found in the scrapings. The scalp of the patient shows unmistakable signs of an old favus, particularly the characteristic slightly depressed bald spots.

In almost all the cases of favus of the nails reported in literature evidence of the disease on other parts of the body, either in the present or past, was always found. In this way the diagnosis which otherwise would depend entirely on microscopical examination is rendered less difficult. In the cases of tricophytosis of the nails which came under my observation it was noticeable that the disease had first attacked the nail from the back or from the sides, and the horny layer was primarily affected, showing a furrowed, pitted and brittle condition. These conditions are also occasionally met with in eczema and psoriasis. In syphilis the nail, if affected, becomes at first dull in color, or shows numerous white spots; later on it becomes thin and soft in the region of the lunula, and finally its entire surface is dry, lustreless and furrowed. This condition, called onychia sicca, is, according to Fournier, not rare, especially in cases with extensive alopecia, or affections of the mucous membranes.

Another form of syphilitic onychia, mostly seen in women, is characterized by brittleness of the free borders of the nails, which break easily.

As regards treatment of favus of the nails, as much as possible of the diseased nail and accumulations underneath should be removed by cutting and scraping. After this has been done I recommend that a strong parasiticide—carbolic acid, for instance—be applied, and finally, in order to protect the patient from auto-inoculation, the affected area be painted with collodium, or tincture of benzoin containing sublimate (1 per cent.). This treatment must be repeated and kept up for some time, taking into consideration the great obstinacy of the disease.

—640 Madison avenue.

—Reprinted from Journal of Cutaneous and Genito-Urinary Diseases, May, 1898.

Editorial

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PIPERAZINE.

The value of piperazine as a solvent of uric acid and uratic concretions and its therapeutical importance in the treatment of chronic and acute gout, stone, renal colic and other forms of uric acid diathesis has been proved during the last few years, not only by pharmacological experiment, but more especially from extensive clinical experience.

Recently renewed attention is called to piperazine by frequent favorable reports in the medical press. Professor R. W. Wilcox, of the Post-Graduate Hospital, New York, has written on "A Phase in the Treatment of Goutiness" in the Medical News, November 27, 1897. As the dispensing of Piperazine, owing to the very hygroscopic nature of the drug, is accompanied with difficulty Professor Wilcox employs Piperazine Water. He states, "So far as my knowledge goes piperazine water is the method of choice for the administration of this drug, because perfect solution in proper dose and quantity of menstruum is obtained."

In the Philadelphia Medical Journal, April 23, 1898, Professor Augustus A. Eshner reports the following interesting case:

There came under my observation in March, 1894, a youth 17 1-2 years old, on account of recurrent attacks of pain in one or the other loin, at varying intervals for a period of eight or nine years. As a child of 5 he had had an atack of hematuria, unattended with pain, and for four or five years subsequently he had similar attacks at intervals of from a week to a month. From this period on the attacks were attended with pain, but free from hemorrhage. It was stated that the pain would appear in either hypochondrium (never in both at the same) and extend to the loan. These attacks were repeated about once a month at first, but they subsequently increased in frequency, until they recurred once a week or oftener, usually occurring at night, and lasting from six to eight hours. Hematuria had occurred once again about a year before the patient came under my observation. There had never been jaundice, nor an appreciable swelling, although the loins and hypochondria appeared slightly tender on manipulation. The urine, examined a day after a paroxysm, was found to be perfectly clear, of amber color and acid reaction; it had a specific gravity of 1020.5 and failed to react to tests for albumin and sugar. It contained a moderate number of

colorless blood corpuscles and a small number of red cells.

After a brief period of observation a diagnosis of renal calculus was made and confirmed by Dr. T. S. K. Morton, who now saw the case in consultation and suggested the use of diethylene diamin (piperazine) in doses of five grains thrice daily, largely diluted with water. After six days of this treatment, in conjunction with a milk diet and rest in bed, the patient felt certain sensations, pointing to the descent of a foreign body down the left ureter, and in the course of a few hours more signs of a stone in the bladder were present, although this condition had been excluded previously by vesical exploration. A sound now introduced into the bladder came in contact with a body that conveyed the sensation of a gritty blood-clot, measuring about one-quarter inch in its smallest and three-eighths inch in its longest diameter. Dr. Morton concluded from this examination that we had to deal with a descended renal calculus, having its outer layers softened—perhaps as an effect of the action of the piperazine. The lad was anesthetized on the following day and litholapaxy performed by Dr. Morton. The calculus was easily caught and crushed, and the fragments were evacuated by the Bigelow washing apparatus, 18 grains of debris being removed. This material proved to consist of uric acid. The outer layers were soft and plastic, as if the denser portions had been dissolved away, leaving only the matrix of blood and mucus.

The patient continued to take piperazine, gr. 5 thrice daily throughout one week in every month, and for nearly nine months he felt well and was free from all distress. He was then seized with an attack of pain in the right loin, lasting for ten hours, but unattended with hematuria. Three months later, in May, 1895, another and prolonged attack occurred, micturition being for several days attended with pain and the urine tinged with blood. After this there was almost constant pain in the right hypochondrium and loin for a month, which disappeared upon administration of piperazine. The patient was now comfortable for four months, when, in September, 1895, the pain returned in an aggravated degree. Sweating at night occurred, with fever, the temperature on one occasion reaching as high as 105 degrees or 106 degrees F. At this time also a clot of blood was observed in the urine. As piperazine was causing gastric derangement, with nausea and vomiting, and occasioned distressingly increased frequency of micturition, so great at night as to disturb sleep, it was deemed justifiable to prepare the patient for operation upon the right kidney, in the hope of removing any concretions that might be present in the renal pelvis or the ureter. The patient was urged to continue meanwhile taking the piperazine twice daily. On October 5 he became conscious of the presence of a foreign body in the bladder, without preceding pain or premonition, and on the following day he passed two small calculi, which were unfortunately lost in the urinal. The urine was obstructed twice in its flow and the click of each stone was heard as it struck the basin.

The patient again took piperazine for a short time and remained free from serious discomfort (save cerebral concussion in consequence of falling from a bicycle) for more than two years, when the pain in the right loin returned. The administration of piperazine was resumed, and after four weeks the young man found the flow of urine suddenly obstructed, with subsequent dribbing and the passage of a few drops of blood. Early in the morning of the following day he became conscious of a sense of pain in the perineum, which gradually advanced forward, and on attempting to pass urine at bedtime a clot of blood and finally a calculus as large as and not unlike the shape of the kernel of a good-sized almond were expelled from the urethra without effort or noteworthy pain or hemorrhage.

The calculus, which measures 18 mm. in length, 10 mm. in width and 8 mm. in thickness, and weighs 18 3-4 grains, is somewhat ovoid in shape, with accuminated extremities and a partly smooth and partly mulber-

ry-like surface, through which passes an oblique groove upon one side. It has a dull lustre, and is of a somewhat ochre-brown color in general, although whitish at one extremity, as if it might have been exposed, in this situation, to the influence of some solvent or disintegrating agency. It is, I surmise, a uric acid formation; I have not submitted it



Renal calculus (actual size) passed by the urethra.

to chemic analysis, as I wished to preserve it intact. The accompanying illustration, kindly made by my friend, Dr. J. Madison Taylor, represents the actual size and portrays the general appearance of the concretion.

This case appears to me to be of more than ordinary interest, partly by reason of its long duration, but more especially on account of the happy therapeutic results. That the calculus was expelled with so much ease is probably explained by the fact that the urinary passages had already been dilated by the expulsion of previous but smaller calculi and the urethra in addition by the employment of the lithotrite nearly four years ago. That there will be no recurrence I feel no assurance, and I have accordingly advised the patient to continue taking piperazine twice a day for six months, then once a day for a year, and after that every second day for another year.

While we were not thoroughly convinced at first that the good effects in the case were attributable to the use of piperazine, I have no longer any doubt upon this point. The demonstration has been nearly as positive and as convincing as a chemic reaction. Dr. Morton, upon whose suggestion piperazine was, as I have already stated, used in this case, informs me that he has lost opportunities for operation in a number of instances by a like use of the drug, and Dr. D. D. Stewart, who was among the first to use it in the United States, and has had with it considerable experience, speaks with much enthusiasm of its therapeutic utility in the presence of uric acid calculi. In any event it would seem that, except in urgent cases, operation for uric acid calculi in the genito-urinary tract should not be undertaken until a fair trial with piperazine had failed

THE MEDICO-CHIRURGICAL COLLEGE MAY CONFER D. D. S., PH. G. AND PH. D. DEGREES.

Judge Gordon has dismissed the exceptions of the Philadelphia Dental College, which sought to restrain the Medico-Chirurgical College from conferring graduate degrees in dental surgery and pharmacy. The Medico-Chirurgical College's petition to so amend its charter as to comprehend this broadening of the institution's field of usefulness has accordingly been granted.

Judge Gordon's opinion in full is as follows:

"In the matter of the petition of the Medico-Chirurgical College of Philadelphia for an amendant to its charter.

"Sur exceptions of Philadelphia Dental College.

"We are of opinion that under the original act of incorporation of this college, on February 12, 1850, and its supplement of the 10th of April, 1867, the institution possesses the power to confer degrees in Dental Surgery and Pharmacy.

"The original act of incorporation empowers the college among other things to establish a Department of Instruction in 'Surgery (including dental surgery) and Pharmacy.' The supplemental act of 1867 confers upon the college 'all the rights, immunities and privileges as to lectur-

ing, granting diplomas and conferring degrees in medicine as is possessed by the officers and professors of the University of Pennsylvania at this time.'

"As was said by the Attorney General of the State in an opinion touching the right of colleges to confer degrees: 'The conferring of a degree simply marks a step in the educational career of the student. It is the expressed judgment of the faculty that he has attained a certain degree of proficiency, and a diploma is granted as the evidence of such degree. The value of a degree depends entirely upon the character and standard of the institution conferring it. It may mean much or it may mean little.'

"We believe that the general grant of powers to this corporation comprehends the right to grant diplomas and confer degrees evincing the proficiency of its students in the various branches expressly authorized to be taught. Moreover, the original act of incorporation specially excluded the right to confer the degree of Bachelor of Medicine or Doctor of Medicine, which would seem to have been a legislative interpretation that but for this exclusion the right to confer these two degrees would have been included in the general grant of powers. While it is true that a proviso or exception to an act cannot enlarge the language of the act or amplify a grant of power, still it may have effect and value as indicating the general legislative intent.

"The third section of the act of incorporation recites: 'That no enumeration of powers, privileges and duties herein contained shall be so construed to exclude others not enumerated which are necessary to the fulfillment of the designs and purposes of this act, and not inconsistent with its express provisions and limitations.' It can hardly be claimed that the granting of degrees in Dental Surgery and Pharmacy is inconsistent with any express provision or limitation in an act specially conferring the power to establish a department for the teaching of dental surgery and pharmacy, or that the granting of such degrees is not necessary to the fulfillment of the designs and purposes of the act of incorporation. Conclusive force, we think, must be given to this argument in view of the special exclusion in the act of two particular degrees in medicine above referred to.

"Again, the supplementary act of 1867 amplifying the original act of incorporation, brushed away even this limitation upon the power of the college to confer degrees and granted plenary authority to confer all the degrees in medicine possessed by the University of Pennsylvania at that time.

"Why should not this grant of power include degrees in dental surgery and pharmacy? Are not dental surgery and pharmacy branches of 'medicine?' The students in dental surgery are instructed, we are informed, in anatomy, physiology, chemistry, therapeutics, materia medica, pathology, and other branches of medical science, while in pharmacy chemistry, physiology, materia medica and therapeutics are branches of instruction. Indeed, the later and better tendency is to closely ally both pharmacy and dental surgery to the parent science, medicine, and to have the students in all three of these sciences matriculate with the same institution.

"The growth in the dignity and efficiency of dental surgery is largely due to the fact that the practitioners in this art to-day, unlike their representatives in the past, are educated carefully in allied medical studies. For this reason most of the great colleges of medicine have now regularly established schools or departments in dental surgery and pharmacy, and the students in these branches seek institutions where they may have the advantage of medical clinics.

"The powers asked for in the amendment now before the Court, we therefore think, are already included in the chartered rights of this college, but for the improvement and clarification of the charter the amendment asked for is proper and should be allowed.

"Even if we had doubt as to this view we still regard the amendment asked for as a proper one, and within

the scope of judicial power and it would be granted.

"The petition is therefore allowed and a decree will be made accordingly.

"JAMES JAY GORDON."

THE NEW ERA IN THE TREATMENT OF GONORRHEA.

Professor E. Finger, of Vienna (Die Heilkunde) distinguishes three epochs in the local therapeutics of gonorrhea. In the first, which antedated the discovery of the gonococcus the treatment consisted in the use of astringents, while in the second epoch, during which the gonococcus was recognized as the active cause of the urethral inflammation, recourse was had to antiseptic and astringent remedies. Quite recently a third era in the local therapy of this disease has been initiated, which is characterized by the employment of drugs which act simply as antiseptics, or, at least, have only feeble antiseptic power. Among these Dr. Finger has lately resorted to the use of protargol, the new silver proteid compound, which has been so highly recommended by Professor Neisser. He has given it a careful trial in 40 cases of acute gonorrhea, most of them being seen during the first week of the infection, and none of them having been previously subjected to other treatment. On the ground of his observations he coincides completely with Neisser in regarding protargol as a very efficient anti-gonorrheal remedy, which, if employed at an early period exerts a prompt and favorable influence upon the course of the disease in the majority of cases, arresting all acute manifestations, causing rapid disappearance of the secretion and gonococci, preventing extension of the process to the posterior urethra, and usually giving good results even in fully developed cases of anterior and posterior urethritis. To obtain permanent results, however, the injections of protargol (one-quarter of 1 per cent. to 1 per cent.) should be kept up for a number of weeks, after which astringents should be resorted to in order to prevent recurrence. One of the advantages of protargol especially emphasized by Finger is its freedom from irritating effects upon the urethral mucous membrane, which renders it particularly suitable for Neisser's method of prolonged injections.

We have in the North long been in the habit of speaking of Southern railroads so disparagingly that it almost requires a practical demonstration to get out of one's head the notion that because some Southern railroads are poor all are not necessarily bad. Recently I traveled from Louisvile to Washington over the Chesapeake & Ohio Railroad and I can truthfully say that I have never taken a trip in more commodious cars or over a more comfortable roadbed. The coaches were vestibuled throughout and were of first-class character. At either end of the day coaches, for instance, in addition to a closet was a little wash room, with towel and soap supplied. Ordinarily railroad managers evidently think that the only people who care to keep clean are the parlor car passengers. Even on the Pennsylvania from Washington to Philadelphia I noticed that the day coaches had no such conveniences. But what, perhaps, more than anything else in our rushing country appeals to the through passenger is the rate of speed. This was excellent, and when a stop had to be made it consisted of the shortest possible time. Altogether it would be difficult for the most captious or luxuriously inclined passenger to find any fault with a trip on an express train over the Chesapeake & Ohio.

ERNEST B. SANGREE.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

RESEARCHES ON THE BACTERIA IN SOME CASES OF GONORRHEAL RHEUMATISM AND SOME CONSIDERATIONS ON THE NON-OPERATIVE TREATMENT OF THE MALADY.

BY L. MARTEL.

(A memoir presented to the Surgical Society of Lyons.)

Since our attention has been directed to localized gonorrheal affections of the articulation by our honored master, Dr. Ollier, we have had occasion to observe in the service of clinique 12 cases. We had none that were suppurating. But we thus study on several other cases illustrating various types of the affection, though we by no means would have it include all. We wish simply to submit a few observations on the bacterial history and the therapeutics of gonorrheal arthritis.

The pathology of gonorrheal arthritis is still in the domain of theory and speculation. Different authors view this condition diversely.

Thus Koenig at the late Congress of German Surgeons declared he never saw a case, and before him Dieulafoy, Widal, Guyon, Jane, Ambert, Knox, Jacquet, Hasland, Bokard and Wertheim had taken a similar view. But of late years the researches and classic works of Petrone, Bouguet, Kammerer, Hall, Hathley and several others, it has been conclusively demonstrated that gonorrheal infection of the joints is a common condition.

Finally, it may not be without interest to know that the infected fluid of what we call gonorrheal arthritis may contain any of the pathogenic germs of inflammation, besides the gonococcus of Neisser. The pathogeny of gonorrhea has not yet been definitely classified by the revelations of bacteriology. This was clearly demonstrated by the treatise of Lee.

Our communication is based on 12 cases. In the first eight we punctured the articulation. These were made from the fourth to the thirtieth day. The quality of the liquid withdrawn was: (1) Acute hydrarthroses, green and purulent; (2) chronic hydrarthroses, liquid, opalescent; (3) acute arthritis, serous liquid; (4) pseudo-phlegmonous arthritis, liquid, dark and generous.

The punctures were made with a Roix sterilized syringe. Removed 20 cc. 10 cc. were distributed in sterilized tubes, and then injected into the peritoneum of a guinea pig. Cultures were made with gelatine agara gar and bouillon. TheO fluids were centrifuged and then mountings made, when the different staining procedures were reapeadtedly made.

The results have been negative all along the line. The micro-organism was not detected, either before or after the liquid was centrifuged. The cultures were all sterile. No harm came to pigs except from trauma of the peritoneum. These researches were interesting, because of their negative results.

Each case presented some special features, but in all they were symp-

tomatic. There was no radical intervention. Our punctures were not intended for therapeutic effect, and in none did we inject the joint.

It cannot be said that the punctures in any manner influenced the course of the disease.

There are generally but two forms of this malady. In the first there is a marked hydrarthrosis, with inflammatory complications of the outlying parts.

In the second form the arthritis presents three types: (a) Arthritis with acute effusion, (b) arthritis pseudo-phlegmonous, (c) acute dry arthritis, with a tendency to early anchylosis, described by Ollier as "arthritic sache-ankylosis."

What is the evolution of these forms?

Evidently from the bacterial researches there is no particular etiology. The examination of the simultaneous discharge of the urethra in the male is generally always positive, though often of a doubtful character in the female, as with her the gonococci may present variable characters.

What had been the treatment?

Each case presented certain special features, though all had common characters. Treatment in the main was symptomatic; no sanguinous intervention was practiced. The punctures made in all cases were followed by injections.

Immobilization in a comfortable adjustment always was followed by a reduction of the swelling and subsidence of inflammation and pain.

When anchylosis was feared the limb was liberated and motion of the joint made under an anesthetic. When inflammatory symptoms had subsided friction was made, electricity was applied and the iodides given internally. In some cases various local medicaments were employed, as pilocarpine, the salicylate of methyl, mercurial friction and pommades of the iodides, but in no instance with marked effects. We never employed any active treatment for the urethritis, which, by the way, is all these cases was very severe and protracted.

In most cases the results of treatment were satisfactory with restoration of the joint. We have never met with the suppurative form.

The dry form, that in which the effusion is plastic and adhesions are early, is always a grave form. Certain to impair the use of the joint.

Note.—Those cases of secondary metastatic gonorrheal infection are not very infrequent, and they constitute one of the most important class of lesions that the surgeon of late years has to deal with. Their diagnosis is by no means simple, and the befogged practitioner may try, and try in vain, the whole range of ordinary remedies on them without avail. Prognosis he cannot make, for he knows not what he is dealing with. In the female the number of these cases is legion. First, the internal genitals being involved, as well as the urethra and vagina, and as in the male the infernal germ may seize on the vesical mucous membrane, the ureters, the renal pelvis or cortex of the kidney itself. Next, the cervix is specially susceptible to gonorrheal poison and finally any of the joints may be invaded. The writer has recently encountered a case of a most severe form of phlegmasia alba dolens of a gonorrheal character in a young married woman, the infection being communicated by her husband. He saw also a very severe case of gonorrheal arthritis in the wrist joint of a young girl under 16 years old.

Next in importance to diagnosis in this class of cases is prompt and energetic treatment, constitutional and local.

My own line of action has been when a case is seen early to employ antiphlogistics, colchicum internally with free action of the emunctories, then free mercurial inunction, pressed to the point of salivation.

Finally, locally, free leeching of the joint and hot fomentations.

When the violence of the malady is checked bandage pressure and support of the limb are indicated. Neglected cases may run an interminable course and end in anchylosis or destruction of the joint. In one of

my own cases, of the suppurative type at the knee, am id-thigh amputation had to be done to extinguish the fever and anguish and save life.

T. H. M.

GONORRHEAL PHLEBITIS.

BY MM. DRS. MONTEUX AND LOP.

—Gazette Hebdom. 5 Mai, 1898.

Infectious phlebitis consecutive to gonorrhea is now occasionally conceded to occur. Woelker, in his inaugural in 1868, was the first to call attention to it, and Empis the same year published the report of a case. Later came the observations of Fouilloux in '69, others following from different cities and countries having since contributed to the subject of gonorrheal phlebitis.

In some of the cases regarded, however, there was good reason to question the etiology.

The following is an illustrative case: A young man of 20 years contracted gonorrhea in March, 1897. Found no hereditary history, was not a drinker or bicyclist. Fifteen days after the urethral discharge began he was seized with severe arthritis at the ankle. This ran for about eight months and terminated in a moderate anchylosis.

On the sixth day after the arthritis began he was seized with rigors and severe pain in the right thigh.

On evacuation nothing special was noted except marked tenderness on Scarpa's triangle. The next day the entire limb was edematous and intensely painful. The saphenous vein could be felt as a thickened, hard cord. Bluish patches along the surface indicated that the saphenous vein was thrombosed.

This condition remained for 26 days, when resolution set in. During the course of the phlebitis the urethral discharge remained the same as to quantity and quality. This then was a typical case of gonorrheal phlebitis, but one might object that no microscopic examination had been made, as it appears from the examination of the blood in these cases the gonococci may be present or not, and their conclusions are on this point negative and contradictory.

It may be observed that phlebitis of the internal saphena almost invariably occurs as a complication in all cases of gonorrheal inflammation of the ankle, as testified to by More and Le Roy, Stratigopaulos and Gouget.

T. H. M.

INFLATED RUBBER CYLINDERS FOR CIRCULAR SUTURE OF THE INTESTINE.

Halsted states that the objections to circular enterorrhaphy without such mechanical aids as bone bobbins, bone plates and buttons, may be removed by the employment of rubber cylinders in the manner indicated in this paper by a series of very clear and excellent plates. The following advantages are claimed for the inflated rubber cylinder in circular suture of the intestine: (1) The vermicular action of the bowel is arrested over the bag, and the stitches can, consequently, be placed at regular and proper intervals; (2) the distended bag unrolls and spreads out to a fine edge the everted raw edge of the intestine and enables the operator to place the stitches with great precision at the desired distance from the edge; (3) if distended intestine is to be sutured to collapsed intestine or intestine of larger to intestine of smaller lumen, the smaller may easily be expanded to fit the larger piece; (4) very little handling of the intestine itself by the operator is necessary; the tube from bag to syringe is used as a handle to rotate and elevate the parts to be united; (5) the cylinder takes the place of at least two assistants, and the operation could readily be performed without an assistant; (6) it presents escape of intestinal contents, and hence dispenses with injurious clamps or the fingers of assistants; (7) the entire operation, exclusive of suture of the abdominal wall, can be performed on dogs in five or six minutes, and probably in less time.

—Bull. Johns Hopkins Hosp., Feb., 1898.

EXCISION OF ILIAC ANEURYSM.

Dollinger showed four months after the operation a man of 32, from whom he had removed an aneurysm of the right external iliac artery. The patient had had a pulsating swelling in the right groin for some two years, but could trace it to no traumatic cause. The aneurysm was situated at the opening of the right external iliac artery into the femoral, and was two and one-half inches long by one and one-half broad; it had grown very rapidly during the past few months. The patient could not stand the pain of digital compression, so that an operation became necessary. The Hunterian operation was regarded as risky, as the artery could not retract and there might be severe secondary hemorrhage; and the recent statistics of Delbet induced the author to adopt a modernized form of Antyllus' procedure. The prognosis in the matter of liability to gangrene was most favorable, as it was found before the operation that a collateral circulation already existed. An incision was made parallel to Poupart's ligament, the aneurysm pushed forwards and the peritoneum upwards, the artery was tied nearly an inch above the former. The narrowed femoral, which was only of the size of the temporal, was next ligatured, and the sac dissected out and removed. The limb at first went pale, but under massage it became yellowish, and finally of the normal color. The patient made an uninterrupted recovery, and when shown had good usein his limbs.

—Pest. med.-chir. Presse, 1897, No. 49.

TREATMENT OF GANGLION.

Unsatisfactory results often follow attempts at treatment of this simple, but troublesome, affection of the wrist; but the following is usually attended with excellent results: The affected part is first thoroughly cleansed, then four drops of undiluted tincture of iodine injected into the cyst by means of a hypodermic syringe; next, a pad of wool is placed over the swelling, and pressure exercised upon it by means of a roller bandage. The dressing is taken off at the end of four days, and the operation repeated if necessary. The cyst nearly always disappears after the second injection, but if it does not the ganglion should be excised. The injection of iodine cures without leaving any scar, without causing any deformity, without material pain and without suppuration.

—Lacourt, These de Paris, Feb., '97.

HOW THE COMPRESSION OF THE CAROTIDS MAY BE UTILIZED IN SURGERY TO EFFECT ANESTHESIA.

M. Jaboulay (Bull. Du Lyon Medical) says that one may effect prompt and effective anesthesia by the compression of the carotids.

The carotids need be compressed but a few moments. We will notice that the patient straightens out, closes the eyes and becomes quiet. The visage becomes blue at first, and then pale. Consciousness is partly, but not completely, lost.

It is now we may reduce a dislocated shoulder or coaptate the ends of fractured bones. Our patient remains unconscious for a few moments after pressure is removed. It is now that we may examine a fractured hip, make an incision or any other rapid movement.

This is recommended when other anesthesia is not to be had, or when a brief period of anesthesia is desirable.

—Indian Lancet.

PEDIATRICS.

In Charge of Dr. L. Fischer.

POLLAKURIA URICA.

Oscar Kraus, in Carlsbad (Allgemein, Wien. Med. Zietung, Feb. 15, 1898) describes in detail this form of disease. The term was first introduced by Dieulafoy. It means a desire to urinate frequently, and where the desire is more frequent than normal.

The article will certainly repay careful reading, as it describes in detail the symptoms and the anatomical causes for the same.

The author's large experience enables him to arrive at scientific deductions, and his statements are therefore of great clinical value.

L. F.

THE DIAZO REACTION IN NURSLINGS.

Dr. N. Umikoff (Jahrbuch fur Kinder 1, 2, 1897) arrives at the following conclusions:

First. It never appears in the urine of nurslings, but is always found in pathological conditions.

Second. High temperatures in children do not affect the reaction.

Third. Catarrhal pneumonia (acute) and also chronic does not give this reaction.

Fourth. Neither in diphtheria nor varicella do we have this reaction.

Fifth. Otitis, coryza, lymphadenitis, bronchitis, pleuritis, gastrointestinal catarrh, colitis, congenital syphilis, eczema, erythema—In the above mentioned diseases we do not have a reaction.

Sixth. In erysipelas and morbilli the reaction is almost always present.

Seventh. The severer the attack of erysipelas or measles the more pronounced the reaction. When the severity of the disease vanishes the reaction loses its intensity.

Eight. This reaction can be found in the urine of nurslings one or two days before exitus, no matter what the nature of the disease may be.

Ninth. The prognosis can at times be guided by the intensity of the reaction, because the more pronounced the reaction the severer the disease.

Tenth. In lethal cases the reaction remains until death, plainly pronounced; therefore the intensity of the disease and the reaction in the urine go hand in hand. L. F.

FLOATING KIDNEY IN CHILDREN.

Comby, of Paris, reports (Annal. de Med., 1897) six cases of floating kidney in girls ranging in age from one month to 14 years, the majority of them suffering with gastric disturbances, besides patosis of the abdominal organs.

In two cases the author believes that tight lacing (corsets) was the etiological factor. In two cases there was distinct evidence of congenital lues. In one case, a child 33 days

old, and another one three months old, both kidneys were found floating, so that the author believes them to have been congenitive.

Guinon has also reported cases of floating kidney in children 4 to 5 years old.

THE VALUE OF DRY CUPPING IN PNEUMONIA.

Dyspnea occurring in the course of lobar pneumonia is frequently a very distressing symptom. The lung being consolidated and the air passages obstructed, the capillaries and blood vessels generally being engorged, we certainly cannot alleviate this so-called internal hyperemia until the natural current of the circulation is re-established. Certain palliative measures are recommended. In olden times blood letting, so-called venesection, had its indications, but today we find that local depletion can be simplified by applying dry cups to the chest.

The plan is the following: From three to six dry cups (small size) are applied over the affected area, and allowed to remain about five minutes. In this manner we can produce an external hyperemia and divert the internal hyperemia to the surface. They are reapplied over the same region in about 12 hours if necessary.

Simple as this remedy appears, the writer has frequently found almost instantaneous relief afforded by this simple mechanical procedure, especially during the first few days.

L. F.

DIPHTHERIA.

In the Medical Times for April, 1898, we find an article by E. Lee, offering a plea for vito-chemic cause of this disease, versus the microbic theory and treatment by animal serum.

Commencing with an elaborate description of his various theories, the writer states that the primary factors of disease include foreign matter and cases of quantity and vitiated quality of food.

The secondary factors are to be included under pathologic fluid products within the body, the result of abnormal chemic action, with or without abnormal temperature.

The secondary causes are those serious factors of disease constituting a large variety of toxines and all blood poisons. It is at this moment that the germ theory of disease finds some apparent support from an imperfect understanding of the relations of micro-organisms.

Without going any further it strikes us that the first cause wherein the writer states, "including foreign matter," is the specific factor causing disease, and this factor is certainly nothing but a micro-organism.

We know that pathogenic bacteria are found within and without the body, and that as long as the system remains in a perfectly healthy condition this bacteria cannot enter the system and cause disease. On the other hand, the moment the system is in a subnormal condition the germs can enter and develop disease.

The toxic formation is so well understood and so simple, that it needs but one word. We all know that micro-organisms when assuming an active state, as they do under favorable conditions of growth when in the proper cultured medium, as they have within the body, develop their toxines, which have been frequently isolated in the laboratory. These toxines are the deadly poisons causing paralysis, in some convulsions. We certainly must take issue with the writer, who, although apparently very sincere, forgets the proven facts regarding micro-organims.

More striking, however, is the author's statement in regard to the anti-toxine treatment of diphtheria, and certainly show their animus or lack of experience with the same. It is certainly a well-established clinical fact that anti toxine properly used (by this I mean proper quality and quantity) can and does cure every case of diphtheria of the so-called Klebs Loffler infection.

We shall in some future issue detail the form of the latter treatment.

L. F.

NEWS ITEMS.

Professor Ludwig Weiss, of the New York School of Clinical Medicine, has just sailed for Europe to complete a series of courses in genito-urinary and allied diseases. He intends to devote especial time with Dr. Fenwick, of London; Professor Guyon, in Paris, and Caspar, in Berlin, besides devoting some time to dermatology with such men as Professor Unna at Hamburg. We wish the Doctor good luck on his mission, and he will certainly be a very welcome member to his profession on his return. He proposes to do special consultation practice with genito-urinary diseases. L. F.

PROFESSOR ADOLF BAGINSKY, OF BERLIN, HONORED.

Professor Adolf Baginsky, of Berlin, the talented director of the Kaiser and Kaiserin Children's Hospital, has just received an additional honor, which the New York Medical Record and the Philadelphia Medical Journal see fit to recognize. It is with equal pleasure that the "Times and Register" announces the fact that this distinguished gentleman has been made an "Honorary Member of the Society of Pediatrists at Moscow." We are also informed that an equal honor has been bestowed on Professor Von Leyden at Berlin.

It is a source of pleasure to announce that the Children's Hospital has a large number of pavilions for the separate treatment of scarlatinal diseases. There exists a diphtheria pavilion, also a measles pavilion, and pavilion for the treatment of mixed infections. Also a pertussis pavilion. The hospital has a very specious surgical pavilion for the management of all infantile surgical disorders. There is a large isolating or so-called observation pavilion. Besides these there are numerous chemical and bacteriological and pathological laboratories. There are the post-mortem rooms for the study of pathological specimens. We commend this institution because of its able management, and take pleasure in congratulating its noble director.

L. F.

Current Medical Literature.

APPARENT DEATH FROM POST-PARTUM HEMORRHAGE.

Gimbert, of Cannes, records a case in which on his arrival at the bedside he found the child born and hemorrhage going on; in a vessel there was a litre and a half of blood, and the bed was soaked. The inert uterus reached to the umbilicus; the pulse could hardly be felt. It was 8.30 A. M. With one hand the aorta was compressed, with the other towels soaked in boiling water were rubbed on the abdomen; ergotin was injected, stimulants were given to drink. The uterus rapidly contracted and the placenta was delivered, accompanied by a fresh gush of blood. But the loss of blood, estimater at three litres, was too much, and the patient sank, with all the signs of apparent death. Instantly the body and head seemed to shrink; the skin was cold as a corpse. No heart beats, pulse, respiration, nor reflex of any kind could be detected. Straightway the patient was placed across the bed, head low on the nurse's knees; direct insufflation of air, from mouth to mouth, with rhythmic traction of the tongue was practiced; hot applications were made to the chest. There was no effect at all. There was at hand a pan of filtered, boiled water holding 300 g.; into this 3 g. of salt were thrown, and a syringeful (20 c. cm.) was injected into one thigh, while stimulation was continued. No result. It was 9.10 A. M. A similar injection was made into the other thigh. After a third injection (60 c. cm. in all) the patient made a little sound; still the heart gave no sign. A fourth injection was made, after which a little fluttering was felt in the right radial artery; some facial contractions and a conjunctival reflex appeared, and attempts at inspiration commenced. Very hot coffee, bouillon and cognac were slowly given by the mouth; the heart beats could be heard, the breathing became better, the skin warmer. It was a quarter to 10. At 11 A. M. resuscitation was assured. At 3 P. M. the patient could be left. The eventual recovery was satisfactory. The author, in commenting on the case, discusses the part played by the subcutaneous injection of serum, to which he attributes the resuscitation of the patient, for rhythmical traction of the tongue, insufflation of air and stimulation of reflexes were unavailing until after the injections. He used this method rather than venous transfusion partly because more immediately applicable, partly because salt solution injected under the skin gets mixed with blood before it reaches the heart, instead of arriving there as salt solution, and partly because intravenous injection has too sudden an action, causing sometimes a dangerous reaction and even toxic symptoms.

—Gaz. Hebdom., Feb. 27, 1898.

THE CYSTOSCOPE IN GYNECOLOGICAL PRACTICE.

Winter has been employing the cystoscope and ureter catherization in women's diseases, and has found it of great use in some cases of doubtful diagnosis. In cases of irritable bladder, for instance, he has by means of the cystoscope seen a sediment lying in the bladder consisting of epithelium and leucocytes. He is inclined to believe that most, if not all, irritable bladders are de-

pendent on some slight inflammatory changes, and are not of purely nervous origin. In cases of hematuria where some doubt is entertained as to the origin of the blood Winter has often seen blood appear at the orifice of a ureter. In carcinoma of the anterior wall of the cervix, where the disease is apt to implicate the bladder and where symptoms referable to the bladder do not show themselves till the disease is considerably advanced; in these cases Winter has found that by means of the cystoscope he has been able to diagnose early implication of the bladder wall. Nitze's cystoscope is used. The chief indications for the use of ureter catheterization in women are: (1) In kidney diseases, particularly pyelitis, also in tuberculous kidney. Examining the condition of the remaining kidney when one has been excised. (2) Examining for renal calculus and other conditions, Casper's ureter-cystoscope is used, and catheters of the French type. The idea of obtaining a view of the whole urinary apparatus is no doubt an excellent one. It requires immense patience and perseverance to become an efficient observer with the cystoscope; this is probably the reason that it is so little used.

—Zeits. fur Geburtsh. und Gynak., Bd. xxxvi., Heft 3.

"ATROPHYING LIGATURES" IN INOPERABLE UTERINE CANCER.

Hartmann and Fredet, in a series of papers on the ligature of arteries for the relief of uterine tumors of different kinds, report in full three operations in which the disease was advanced cancer. The first patient was 67, and suffered badly from hemorrhages; the cervix was replaced by a cauliflower mass. On May 13, 1897, Hartmann opened the abdomen and divided the peritoneum close to the ureter, exposed the uterine artery, and tied it. The ovarian artery was also tied. The same was done on the opposite side. There was very marked but never complete cessation of the bleeding. The patient died of cachexia on January 1, 1898. In the second case the patient was 45. The uterine arteries were tied on October 15, 1897, and the patient left the hospital on November 11 and has not since been heard of. The third patient, 39 years of age, had a vast cancerous ulcer opening up the uterus from the vaginal side. Hartmann and Fredet ligatured the right hypogastric artery, the left utero-umbilical trunk, both ovarian, and the right round ligament artery. This latter was tied, because at the necropsy of the first case that vessel was found previous though not enlarged. The operation was performed on October 11, 1897. The hemorrhages, for which it had been undertaken, were only checked for a few weeks, and the patient died on January 10, 1898. Complete reports of the necropsies of the first and third cases are given, with diagrams showing the different methods of securing the arteries. The best plan is to expose and tie the uterine artery in the ovarian fossa behind the broad ligament. The results, however, are very questionable; the bleeding is but checked, the growth of the tumor hardly affected.

—An. de Gynec. et d'Obstet., Feb., '98.

SUCKLING AND THE TYPHOID BACILLUS.

Talamon and Castaigne observed two cases of typhoid fever in women suckling their infants. The first patient had been delivered three months when the fever set in. The milk and the blood exhibited clearly the agglutinative properties of Eberth's bacillus. The blood of the suckling did not agglutinate. The second mother was taken ill with typhoid fever four months after delivery. The agglutinative power in the blood and milk was very strong. The infant had suffered for a month from severe gastro-intestinal disturbance. Then its blood was found to agglutinate, and it was weaned. The agglutinative power diminished, and at length disappeared. The child was again put to the breast, and very soon its blood again agglutinated the bacillus of Eberth. Talamon and Castaigne believe that the intestinal irritation in the case of this infant was not an effect, but

rather the cause, of the agglutinative principle being passed with unusual ease and rapidity into the circulation.

—L'Obstetrique, Jan. 15, 1898.

TARNIER'S FORCEPS IN CASES OF RETENTION OF THE AFTER-COMING HEAD.

G. Saguet was summoned to a difficult case of labor, and found a 9 parous woman, 45 years of age, partially delivered. There had been a pelvic presentation, and the very large fetus had been with difficulty drawn through the vulva as far as the shoulders. The head, in an extended position, was still at the brim, the chin being posterior; considerable traction had been made with the help of two fingers in the mouth, and the Mauriceau and Champetier de Ribes maneuvre had been tried without result. Further traction only led to fracture of the maxilla of the dead infant, and to the giving way of the neck also. Forceps (Tarnier) was then applied to the head without anesthesia—there was no chloroform available—and after about 15 minutes' traction the child was born. It weighed 16 pounds. Saguet emphasizes the value of the application of forceps, especially the Tarnier axis-traction instrument, to the after-coming head in breech presentations.

—Union Med. du Nord-Est., Feb. 15, '98.

THE EARLY TREATMENT OF SYPHILIS.

Neumann holds that no remedy can be depended upon to ward off the onset of constitutional symptoms in syphilis; the most that results is their temporary postponement. He admits, however, that exceptionally abortive treatment appears to be successful. Mercury and iodine are specific antisyphilitic remedies, which do not destroy the cause of syphilis, though they control its products. No other remedy is yet known which acts directly on the cause of syphilis, whatever that may be, and of this many proofs can be adduced. Thus the abortive treatment would, if these remedies acted on the cause of syphilis, utterly destroy it before it could take possession of the whole organism. But of 100 cases thus treated in Neumann's clinic not one remained free from secondary symptoms. Again, saturation of the organism with mercury or iodine does not prevent relapses, which have occurred up to 55 years after infection. Late syphilitic manifestations appear most frequently on the very sites of the early lesions, which would be impossible if the cause of the disease had been destroyed. Per contra mercury and iodide are often ineffectual in well-marked syphilis. By whatever remedies and in whatever manner treated from 6 to 22 per cent. of syphilitics remain uncured; that is, develop tertiary symptoms. From these considerations Neumann concludes that the symptomatic treatment of syphilis is the sole rational one, and that it acts by establishing a temporary or permanent immunity to the ever-present cause of the disease. The "chronic intermittent" treatment of Fournier referred to above is not to be recommended, as the results obtained by it are no better than by the symptomatic method.

—Wien. klin. Rundschau, 1897.

THE ELECTRICAL TREATMENT OF NEURASTHENIA.

Apostoli lays down the following postulates in the electrical treatment of neurasthenia, a subject which has been recently so much advanced by the discoveries and inventions of d'Arsonval. Neurasthenia is a clinical affection, which is best understood and treated after dismissing all thought as to its etiology. It is projected, as a rule, on a background either of hysteria or of arthritis; these color the symptoms differently, and necessitate different treatment. Electricity properly used, quite apart from its curative properties, is a veritable touchstone in the detection of neurasthenia. Electricity may be accepted as the routine treatment for the affection, the particular variety to be employed varying with the subject. Local applications, especially at the beginning of the attack are, as a rule, inferior to general electrical means, such as static baths, or baths connected with alternating currents of

great rapidity. The more neurasthenia is complicated by peripheral nervous troubles, such as hysterical hemi-anesthesia, the stronger is the indication for the kind of electricity whose peripheral localization gives the highest tension. Here static electricity or franklinization is required, while in arthritic forms, or where the general nutrition is obviously affected, cellular currents, or those of high frequency should be employed. The hysterical form of anesthesia may yield to the simple static bath, but more often requires the use of sparks along the spine. Hyperesthetic hysterical subjects are best treated with very mild static electricity, no sparks being employed; the anesthetic patients are little, if at all, helped by currents of high frequency, and derive no benefit from auto-induction by the large solenoid. The arthritic class, on the other hand, are very susceptible to the shock of sparks, and are not benefited thereby; they improve greatly with rapidly alternating currents. In many cases, particularly in those in which the two classes of symptoms are combined, it may be advisable to use static electricity and the alternating currents simultaneously; galvanism and faradism are of little use in the treatment of neurasthenia.

—Annales de l'Electrobiologie, Jan. 15, 1898.

THE NATURE OF "SCURVY RICKETS."

Otto Naegeli records a careful examination of the tissues in an exceptionally well-marked example of this affection, occurring in an artificially fed child aged 11 months; only three previous cases appear to have been so thoroughly investigated. The signs of rickets were extremely slight, and the author considers that they might well be diminished as secondary. Dismissing the infective and rachitic theories of the origin of the disease, he regards it as a specific chronic general affection of small children consequent upon imperfect nutrition. It is characterized by general changes in the growing organism, especially in the blood and bones. When this condition has reached a certain height a hemorrhagic diathesis supervenes, no doubt in consequence of the constitutional debility and the well-marked clinical picture of the disease is hence evoked. The hemorrhages occur in single attacks spread over a considerable period; they are first seen in the region of the bony changes, and particularly in the calcifying border of the epiphyseal line and in the nucleus of ossification of the epiphysis. The disease has no more to do with syphilis than with bacillary infection or rickets. Whether it can be grouped under the heading of infantile scurvy cannot be stated with certainty, but probably it is not so to be classified. The true nature of the idiopathic affection under consideration cannot be stated without further histological investigations.

—Centralbl. f. allgem. Pathol., viii, 17.

GUMMATA OF THE HEART IN CONGENITAL SYPHILIS.

Lecount on the examination of a full-term child that died directly after birth found, besides well-marked lesions of congenital syphilis on the skin and lungs, four areas of focal interstitial myocarditis. The largest was on the anterior surface of the heart, midway between the apex and the base; it involved the left ventricle and the septum, and formed a white circular area 1 cm. in diameter. On the diaphragmatic surface of the heart near its right border there were three similar though smaller areas. Microscopically the appearances were those of a granuloma; there was no caseation. Syphilomata in the heart are rare in congenital syphilis. Mracek in 112 cases of heart syphilis found nine of congenital origin, and L. Hektoen added a fresh example in 1896, but none have been published since.

—Journ. Amer. Med. Assoc., Jan. 22, 1898.

PREVENTION OF UTERINE DISEASE.

Gonorrhoeal infection is now generally considered as one of the most important causes in the development of diseases of the female genital organs. The starting point is usually a gonorrhoeal process in the vagina, which extending upward into the uterus and tubes, give rise to endom-

etritis, salpingitis, ovarian disease and peritonitis, and other serious lesions of the generative organs. For this reason the treatment of the primary vaginitis in as thorough manner as possible becomes of paramount importance. According to many practitioners copious irrigation of the vagina with hot water and the use of Micajah's Medicated Uterine Wafers is the most efficient, agreeable and convenient method of accomplishing this. These wafers are not only strongly antiseptic, destroying the gonococcus, but astringent and alterative, subduing inflammation and promoting a rapid return to a healthy state. (Write Micajah & Co., Warren, Pa., for samples.)—Editor.

NERVOUS LESIONS IN GASTRO-ENTERITIS.

E. Muller and Manicatide have published a preliminary note on the changes observed in the nerve cells of the brain and spinal cord in cases of gastro-enteritis in infants. The changes were of a degenerative character, and affected nuclei as well as the cell substance. They varied in intensity in different cases and in different areas in the same case. Neither the presence or absence of fever, nor the duration of the illness appeared to have any relation to the severity of the cell degeneration. The observation, as the authors point out, illustrates the extent of the toxic effects produced by gastro-enteritis.

—Deut. med. Woch., March 3, 1898.

A CLEANSING AGENT IN DISEASES OF THE NASAL MUCOUS MEMBRANE.

BY GEORGE H. STUBBS, M. D.,
Birmingham, Ala.

The sheet anchor in the treatment of hypertrophic rhinitis is cleanliness and free drainage.

I have been using for some time a preparation manufactured by the Kress & Owen Company, of New York, under the name of Glyco-Thymoline (Kress). It is a wine-colored liquid, bland, alkaline, antiseptic and non-irritating, and when diluted with three or four times its own bulk of distilled water makes a most efficient and agreeable cleansing agent for the nasal cavities, and fills every requirement necessary for preparing the mucous membrane for effectual treatment.

At the last meeting of the American Medical Association a widely-known rhinologist and laryngologist said: "The profession out of reach of the specialist can do more for the relief of patients suffering with chronic inflammatory conditions of the nasal cavities with Glyco-Thymoline (Kress) and the Birmingham douche than any one preparation I know of.' '

This, coming from so eminent an authority, is worth repeating, and after a thorough trial of the preparation I feel justified in indorsing his statement, and believe it to be worthy of this short notice.

—The Alabama Medical and Surgical Age, March, 1898.

DYSTOCIA FROM CICATRICIAL GROWTHS—CEASAREAN SECTION.

Nehkorn in a paper on a case where striated muscular tissue was found in the uterine wall, gives a remarkable clinical record of the same case. The patient was 28, and had suffered severely from pelvic inflammation following abortion three years previously. Flooding occurred before labor pains set in, the membranes ruptured, the labor made no progress for several days, and the patient on that account was examined. A very firm mass was detected in Douglas' pouch, in the region of the sacrum; it obviously impeded the fetal head. As the heart sounds were still audible Cesarean section was performed. The uterine wall, was of extraordinary thickness. On the second day complete obstruction had set in, the deposit in the pelvis pressing on the rectum. The abdomen was opened; the descending colon could not be reached, so a coil of small intestine was drawn into the incision and opened. This gave relief, but the patient died ten hours later. At the necropsy a dense mass of cicatricial tissue, representing both parametric and perimetric deposit was found soldering the uterus to the sacrum. That organ was much hypertrophied posteriorly, and its thickened posterior wall rose up so as to form a sharp angle a little above the os internum. At the angle its muscular tissue was redder

than usual, owing, as microscopical examination proved, to the predominance of striated muscular fibres. Girode reported the presence of striped muscle in a uterus six years ago. In Nehrkorn's case the pelvic disease had caused many morbid changes. The rectum was obstructed, the uterus, renal pelves and calyces were dilated and the kidneys were in a state of parenchymatous degeneration.

—Virchow's Archiv, Vol. cli, part I, 1898.

APPENDICITIS AND PREGNANCY.

Pinard reports the case of a previously healthy young woman who was suddenly seized with violent epigastric pain radiating into the right iliac fossa. The next day vomiting began. On the fourth day there was considerable meteorism, but a tumor corresponding to the gravid uterus was found, with tenderness over McBurney's point. Per vaginam nothing abnormal discovered. Temperature 98.6 F., pulse 120. On the fifth day Segond operated and let out a quantity of fetid pus. During the night a living five and one-half months' old fetus was expelled, which, however, died soon after. Post-mortem there was gangrene of the appendix in three separate places. Blood from the child's umbilical cord gave pure cultures of B. coli. The author has colected 45 cases of appendicitis complicating pregnancy, the diagnosis being confirmed in 30 by operation or post-mortem. He concludes from these that (1) appendicitis may attack a pregnant woman at the beginning or at any time during pregnancy or the puerperium, (2) in most cases it causes abortion. The child dies as a rule very rapidly, as the author's case proves, from infection. (3) It is only possible to save both the mother and child when the abscess is limited and encysted. (4) Every type of appendicitis may occur. (5) The diagnosis may be difficult owing to the enlarged uterus, or still more during the puerperium, but is usually possible with care. (6) Treatment consists in operating as early as possible. A preliminary induction of premature labor is unjustifiable, since pregnancy is not always interrupted if the mother recovers. (7) Prophylaxis consists in operating in every case of relapsing appendicitis in a young girl or non-pregnant woman during the period of sexual activity to prevent future complications during pregnancy.

—Sem. Med., March 23, 1898.

GEOSOTE.

Rieck records the results of a year's use of this compound, first made by Wendt, of Berlin. Geosote is a valerianate of guaiacol, and hence is closely related to eosote, the valerianate of creosote. It is a yellow, oily liquid, soluble with difficulty in aqueous media, but readily in alcohol, ether, chloroform and benzol; it is stated to be readily absorbable by the skin, and to be of particular value when subcutaneously injected. Internally it is best given in capsules containing three grains, of which the author states that he has taken 15 at a sitting without ill effect; on another occasion he injected more than 100 grains beneath the skin of his arm without inconvenience. Geosote has a particular influence on all mucous membranes checking increased secretion, and at the same time retarding its putrefaction. Rieck has accordingly found it valuable in the treatment of diarrhea, and also in bronchial affections, in which the expectoration had not yielded to the administration of iodides. He recommends it warmly in diseases of the respiratory organs in children. The special indication, however, for this, as for all similar preparations, is in the treatment of tuberculosis. The author has used it in 76 tuberculous cases, of which he claims that no fewer than 31 were cured and 32 improved by its use. Only eight died, three of which were acute pulmonary tuberculosis, two tuberculous meningitis, and three general tuberculosis. In all of them the author graphically says the most ideal serum therapy would have been of no more use than that of an antiseptic after the guillotine. He states that the special action of geosote is to cause diminution of the tuberculous process and encapsulement of its products; it would thus act like tuberculin, but without producing a

general reaction. It is said to exert a similar influence upon tuberculous glands in the neck. In surgical cases the effects of its local use are stated to be even more obvious, and in support of this the history of a very striking case of bone and joint tuberculosis is given. If future observations bear this out geosote will be a most valuable aid to conservative surgery.

—Reprints from Deuts. med. Zeit., 1896, No. 103, and 1897, No. 63.

ORTHOFORM.

Kallenberger has used orthoform in surgical practice. It is a fine, white, non-hygroscopic powder and has the following properties: (1) It acts as a local anesthetic wherever sensory nerve endings are exposed. (2) It is non-poisonous, so that the author was able in one case to use as much as 60 grains in one week upon a large raw surface. (3) It is antiseptic. Kallenberger then relates cases illustrating the value of orthoform (1) in fresh wounds, (2) in burns, (3) in ulcers of the legs, (4) in carcinomatous ulcers, (5) in syphilitic ulcers, and (6) in toothache where the ends of the nerve were exposed. The pain mostly disappeared in three to five minutes, after which the local anesthesia was complete, and lasted on an average for 35 hours. If the exudation is very abundant an ointment should be used instead of powder, which may be washed away. In a case of ulcer of the leg, where iodoform was substituted for the orthoform there was no return of pain for seven hours. This period of freedom from pain is more marked the more prolonged the previous application of the orthoform has been. This agent also limits the exudation. Orthoform has been used internally in laryngeal ulcers, as well as in gastric ulcer and carcinoma. A chloride in addition to the base has been thus employed by Neumayer, but for surgical purposes the chloride is unsuitable owing to its irritating properties.

—Berl. klin. Woch., March 21, 1898.

LYCOCTONIN.

Marchetti gives an account of his experiments with this alkaloid, derived of aconitum lycoctonum and presenting itself as a yellowish powder, slightly soluble in ordinary water, but easily in water acidulated with acetic or tartaric acid. The minimum lethal dose in the frog is about 78 cg. per kilog. Poisoning is shown by paresis or general paralysis. In warm-blooded animals the results were mostly negative, except in very large doses. Lycoctonin possesses, in addition to a paralytic action on the central nervous system, a peripheral action on the striated muscle fibre. On the heart the effect is chiefly seen in excitation of the intracardiac "apparatus of arrest," together with a rather weak exciting action on the myocardium; it is not a very active cardiac poison. At present it does not appear that lycoctonin could be employed advantageously in human therapeutics, but probably this is not the most active principle of the plant.

—Lo Sperimentale, An. 51, f. 4.

A NEW FORM OF TUBERCULOSIS.

Ceourmont describes what he considers to be a form of tubercle similar in all its naked eye and microscopic appearances to the ordinary form, but dependent on the presence of a different micro-organism, and which he considers to be therefore an atypical form of human tuberculosis. The patient was a man aged 51, without tuberculosis, rheumatic, syphilitic or alcoholic history. As the result of a fall he injured his right elbow, which subsequently inflamed and finally presented clinical appearances of tuberculous disease of the joint, but without pain. On aspiration a reddish brown non-purulent fluid was drawn off. Examination of the joint showed the ordinary appearances of tuberculous arthritis, and sections of the swollen synovial membrane had all the microscopic appearances of tubercle, including giant cells. Subsequently the surrounding tissues were invaded and the patient died in a cachectic condition after leaving the hospital, so that no necropsy was obtained. The most careful examination of both fluid and sections failed to reveal the presence of Koch's tubercle bacillus. Guinea pigs and rabbits were inoculated in various ways with the fluid. In the former instance tuber-

cle was easily produced; in some few instances the animals died without apparent lesion. The length of survival in inoculation varied. There was often abscess formation, the glands became rapidly involved, the liver and other organs became infiltrated with tubercle. In the case of rabbits there was generally very severe subcutaneous lesion with pus formation. Pulmonary tubercle appeared, but generally the serous surfaces remained free. In the case of intravenous injection the animals died with miliary tubercle. The author was able to separate and cultiviate a streptobacillus by inoculating various media with a caseous tubercle from the liver. The organism grew freely in ordinary peptonized bouillon, which became cloudy in 24 hours at 37 degrees without producing any pellicle or odor. On gelatine the cultures developed abundantly in the form of a white deposit, thin and slightly creamy at the end of 24 hours without liquefaction. Stab cultures showed the presence of fine punctiform colonies, which, however, did not reach any large size. The organism was easily stained by gentian velvet, carbolfuchsin, but did not retain Gram's stain. In character, microscopic examination showed that the organism was a streptobacillus without mobility, the elements being slightly rounded at the ends. Inoculation of the pure culture gave rise to miliary tubercle, caseating abscess and lesions similar to those produced by inoculation of the original fluid and the organism could subsequently be demonstrated in the various lesions. The writer suggests that in these observations a lesion similar in all its aspects to ordinary tubercle is apparently due to a micro-organism having characters completely different from those usually observed in Koch's bacillus.

—Arch. de Med. Exper., January, 1898.

AIR EMBOLISM.

Death from entrance of air into the veins is an accident which has from time to time attracted considerable attention. Begouin has recently investigated the condition with a view to ascertaining the real cause of death, and if any method of treatment is possible. Opinions have been very divided as to the mechanism which brings about death, for several physiologists have stated that large quantities of air may be introduced in the veins of animals without a fatal result. As the result of a series of experiments undertaken by the author he observed that the rapidity of death seemed to depend rather on the amount of air contained in the right ventricle, and according as this air is introduced gradually or forcibly, so there will be slowly or rapidly produced asphyxia. On post-mortem examination the author found the right ventricle greatly distended with frothy blood. He then found that by passing a very fine trochar into the right ventricle after admission of air by the veins, and aspirating, death did not take place, but on the contrary, in a very short time the animal seemed to have recovered. The author's conclusions are, therefore, that death is due to distension of the right ventricle by air and consequent right-sided asystole. Secondly, that removal of the air by aspiration allowed the ventricle to recover.

—Arch. Clin. de Bordeaux, January, 1898.

GASTROPTOSIS.

Bial, of Renver's clinic, discusses the relation of this affection to nervous gastric affections. Of great importance is the improvement produced by a mechanical treatment. By the use of a suitable binder the sensations of burning and fullness, the pains in the abdomen, unpleasant taste in the mouth, nausea, vomiting and other symptoms of a gastric neurosis disappear. In cases of pendulous abdomen, etc., it is thus possible to restore to some extent the normal relation of parts, and to provide for the intestine a firm wall of support. The author has investigated the limits of the stomach before and after the application of a binder adapted for the purpose. He gives details of three cases in which a reposition of the stomach was brought about in this way. Bial discusses the benefits of such treatment in cases of enteroptosis in which symp-

toms of a gastric neurosis are present. In such cases the effects of suggestive treatment cannot be neglected. He relates in detail two cases in which general treatment without any regard to the local condition was successful. In one case hypnotic treatment was adopted. In the other the stomach boundaries were investigated by the gastrodiaphanoscope, and this formed part of the treatment. In both cases there was considerable gastroptosis. In such cases the disease is really a general one. In women an alteration in the position of the organs is very common. If the nervous system is affected then this change in position of the viscera becomes apparent by symptoms. In such cases the trouble really arises in the centres, and not in the local conditions. The disappearance of these local conditions may not be followed by a disappearance of the symptoms, and hence the importance of the general treatment. There are cases which defy all treatment, both general and local, but in the majority of cases great improvement results.

—Berl. klin. Woch., July 19, 1897.

CRANIAL PERCUSSION.

Paoli and Mori have made an extensive series of observations on the value of percussing the cranial cavity as an aid to diagnosis in cases of intracranial disease. They begin by giving a careful account of the results obtained by percussing the normal skull. They point out the necessity of shaving the head in cases where the hair is thick, and they prefer to percuss with the finger directly on the surface. They recommend the division of the cranial surface into three symmetrical parts—frontal, parietal and occipital, and in each of these regions there are constant points, so that the note of one side may be gradually compared with the corresponding note of the other. In the case of the frontal and occipital regions there are median points as well. By their investigations they find that a dull note is found in a very limited extent, the rule being a high degree of resonance, with well-marked differences according to the portion percussed. They also find that the results vary with age and sex, and, to a certain extent, with the density of the skullcap. They also find that the sense of resistance varies in different instances. Thus in boys in the first decennium there is a very notable resonance in the note, more particularly in the temporal and parietal regions, while in some portions of the frontal (more particularly over the sinuses), and in the occipital, the note is fairly dull. In boys the subjects of rickets the note is still more resonant, and sometimes a crack-pot element is perceived. In adults the note varies to a certain extent; in women there is more resonance, the note resembling rather that obtained in childhood, and a crack-pot sound is not uncommon. In the adult man the resonance is much less than that obtained in women and children, and the areas over which the dull note is heard are much more extensive. In advanced age the opposite obtains, for in old women the resonance is considerably diminished, while in old men of the same age it is much more marked than earlier in life. The authors therefore draw attention to the fact that want of symmetry in the cranial development must be looked for. The areas which generally give a dull note are the parts over the frontal sinuses and mastoid processes, especially in young children, which the writers regard as curious in view of the fact that there are air spaces in both these situations. After ascertaining these facts the authors proceeded to examine patients with different forms of intracranial disease. Their first case was a boy suffering from epilepsy, who had fractured his frontal bone by falling. Percussion showed marked dullness all over the portion corresponding to the fracture. The patient was subsequently trephined, and considerable thickening of the dura was then discovered, with a large layer of hemorrhagic infiltration in the form of hematoma, and exactly corresponding with the area of dulness. Several other cases of fracture were similarly examined, and the writers were enabled to note marked degrees in the amount of resonance. Another case is quoted

in which, as the result of a fall, a patient lost the use of his right hand and arm and speech. On examination a wound was found over the right half of the occipital bone, and careful percussion showed a marked decrease in resonance on the left side of the head over the parietal. The patient improved considerably, and subsequently regained the use of the right hand and arm, and at the same time percussion showed a return of resonance over the left motor area. The authors consider that this method of examination is likely to prove of considerable service in certain cases of injury to the head.

—Il Policlinico, February 15, 1898.

REPAIR OF MUSCLE BY WIRE.

Lucas-Championniere contributes an article on his method of repairing ruptured muscle by means of wire in a manner very similar to that employed by him in fractures of the patella. A man, aged 50, was admitted to the Beaujon Hospital under his care with the following history: A long, heavy ladder blown over by a gust of wind struck the patient across the left thigh. Very shortly after there was extreme swelling of the part, but careful examination showed that there was no fracture. Notwithstanding this, there was complete inability to move the limb. In a fortnight's time it was possible to diagnose rupture of the triceps tendon above the patella, accompanied by considerable laceration of the muscle tissue, and there still remained considerable effusion of blood into the thigh. There was a marked hollow immediately above the patella, which became more evident on making any attempt to raise the limb, which attempt was always futile. It was easy to ascertain the absence of any fracture of the patella. Lucas-Championniere decided to operate, and found on cutting down that here remained only a short tongue of fibrous tissue representing the triceps tendon at its insertion to the patella; above, the muscle was irregularly torn and retracted. There was an opening into the synovial sac of the knee, and the articulation was filled with blood clot. The writer proceeded by inserting two silver wires into the patella and carrying them from there to the triceps tendon above, though he feared that the least traction would cause them to tear away from the latter. The patient healed rapidly, but a month later after leaving the hospital he was taken with some kind of convulsive seizure, as the result of which there was a repetition of all the symptoms in the injured limb. Lucas-Championniere cut down on the knee a second time above the cicatrix of the former operation. He found that the silver wires had not cut the tissue, but having become untwisted they had given. With the view of avoiding repetition of this accident he devised the following proceeding: Above the level of the stump of torn triceps muscle and tendon he threaded a strong piece of silver wire perpendicularly to the muscular fibres in such a manner that it could not possibly give. Then, two parallel pieces of silver wire were passed through the patella and drawn upwards so as to pass over the first transvere wire. Thus, by means of a bony base below and a metallic above, he was able to exert sufficient traction to bring the patella and the triceps tendon into approximation, these in their turn being sutured with catgut. To prevent any entanglement of the wires they were carefully doubled on themselves. Healing was rapid, and the patient left the hospital in three weeks, but was seen again seven months after the operation, when it was found he could walk perfectly; extension of the limb was complete, there was no pain, and the knee presented no abnormal characters. On examination by the radiograph it was discovered that the silver wires were broken, from which fact the writer draws the following conclusions: That in suturing the muscle and tendon by a silver wire healing results by fibrous union brought about by means of the wire acting mechanically. Should it be necessary to keep the wires permanently in place it is better to employ platinum rather than silver.

—Journ. de Med., April 25, 1898.

SYPHILITIC PHLEBITIS.

R. Heuzard comes to the following conclusions. Syphilis can manifest itself in the veins. There are two forms of syphilitic phlebitis. The first form is acute or subacute, and corresponds to the secondary period of the disease. The efficacy of treatment proves that this form is really due to the syphilis and not to a secondary affection. The other form of syphilitic phlebitis is chronic, and corresponds to the tertiary period of the disease; it may be localized (gumma of a vein) or generalized (phlebosclerosis). The phlebitis of both secondary and tertiary syphilis affects the veins of the lower extremities by preference. In regard to diagnosis, other varieties of phlebitis and lymphangitis must be excluded. The prognosis is generally favorable, the average duration being two months. The treatment should be antisyphilitic mixed.

—These de Paris, 1898, No. 179.

GASTRIC EROSION.

Dieulafoy has collected seven cases (two of his own) of superficial erosion of the gastric mucosa, accompanied by violent hematemesis. He concludes: (1) Besides the simple gastric ulcer there is a form of very superficial erosion, varying in size from a sixpenny to a four-shilling piece, for which a suitable name is "exulceratio simplex;" (2) this latter may cause even more terrible hematemesis than most cases of simple ulcer. (3) The loss of substance does not extend in depth below the mucosa, including the muscularis mucosae. The accompanying hematemesis is caused by ulceration of the arteries running in the muscularis mucosae. The opening in the vessel is usually lateral, and thus in the worst position for natural arrest of hemorrhage. (4) Clinically the disease may present all the classical signs of simple gastric ulcer, but more often its onset is insidious or completely latent until revealed by profuse hematemesis. (5) The best treatment in this form of simple erosion is by operation. The quantity of blood vomited rather than the frequency of hematemesis being the indication for operation, a large amount usually coinciding with ulceration of a large artery, a fatal condition unless remedied at once. (6) It is very important to remember while operating that the stomach may at first sight appear perfectly normal, in spite of an erosion being present. Thus, the mucous membrane must be examined very carefully, if necessary, with a lens. Occasionally patches looking like ecchymoses may serve as a guide to the position of the erosion. (7) In the absence of special indications it is sufficient to suture together the bleeding part with a small part of the healthy mucosa round it. The prognosis after operation for exulceratio simplex is better than for ulcus simplex, because of the limited extent of the former lesion.

—Bull. de l'Acad. de Med., No. 3, 1898.

HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

Massalongo has made a clinical and critical study of this disease, and believes that the bone changes have no pathogenic relation to the pulmonary disease nor to any alteration in the peripheral circulation secondary to the pulmonary disease. In the author's views those arthropathies are not due to any one single cause, but to many different causes, and he proposes to call the disease "secondary hypertrophic osteo-arthropathy." In the genesis of the disease more or less important parts are played by preceding rheumatic arthritis, syphilis, cachectic and infective conditions, alterations in the function of certain glands and of their internal secretions, and toxic substances produced in the diseased focus.

—Il Policlinico, Sept. 15, 1897.

PARALYSIS OF THE RECURRENT LARYNGEAL IN MITRAL STENOSIS.

Ortner records two cases of this complication which may lead to great diagnostic difficulties. The first was that of a boy of 17 with a rheumatic history, whose complaint was great dyspnea, with swelling of the abdomen and lower extremeties. Examination showed venous pulsation in the neck and hoarseness from

complete paralysis of the left vocal cord; the right carotid was beating powerfully, while the pulse in the left was extremely small and feeble. The heart was enlarged downward and outward, and also to the right. At the apex the first sound was accentuated, and there was a faint presystolic murmur, with more marked systolic and diastolic; there was a weak systolic murmur in the tricuspid area, but the sounds at the base were clear, and the pulmonary second scarcely accentuated. The diagnosis was mitral stenosis and regurgitation with tricuspid insufficiency, and an aneurysm of the arch of the aorta pressing on the left recurrent laryngeal. It was believed that the left carotid and both subclavian arteries were compressed by the aneurysm, and further that the right subclavian arose behind the left. At the necropsy it was found that the pericardium was universally adherent and the heart generally enlarged; the left venous ostium was stenosed and the bicuspid valve had a few vegetations upon it. The left auricle was enormous, extending under the left main bronchus, and pressing on the recurrent nerve, which was degenerated. The aorta and orifices of the great vessels were normal. The paralysis of the vocal cord was thus due to the pressure upon the nerve of a left auricle enlarged through mitral stenosis. The second patient was a woman of 34, also with a rheumatic history. She suffered with dyspnea, giddiness and palpitation, and of late there had developed swelling of the feet and abdomen, with hoarseness. The patient was cyanosed, and the heart hypertrophied more than dilated. At the apex there was a variable presystolic murmur, followed by a loud first sound with a systolic murmur; the second sound was feeble. At the base a systolic murmur was audible on both sides, a diastolic only on the right; the heart was very irregular. There was complete paralysis of the left vocal cord. This time the cause of the laryngeal paralysis was correctly diagnosed. At the necropsy the mitral valve showed buttonhole stenosis, and the left auricle was immensely enlarged, squeezing the recurrent laryngeal against the aorta and leading to its degeneration. There was also marked aortic stenosis, the valves being fused together so that the orifice barely admitted the little finger. The complication of paralysis of the recurrent laryngeal in mitral stenosis has not, it is believed, been previously recorded.

—Wien. klin. Woch., 1897, No. 33.

COXA VARA.

De Quervain has collected the literature of a little known deformity of the hip described recently under the name of "coxa vara" from analogy with genu varum. It consists essentially in a downward bending of the neck of the femur, the head being lower than the top of the great tronchanter. Several varieties have been described: (a) Congenital (rare), (b) infantile (rickety coxa vara). (1) Simple bending downward of the neck (Kocher's coxa adducta); (2) Bending of the neck downward and backward. (c) Coxa vara adolescentium. (1) Kocher's coxa adducta; (2) downward and backward displacement of the neck with rotation of the head on its long axis; (3) elevation of the tronchanter and inward rotation. (d) Coxa vara of adults (the only observed case due to osteomalacia). Frequency: This deformity, at any rate the rickety variety and that found in adolescents where there are generally no signs of ricketts, is much more common than is generally thought. Sex: Males more often affected than females. Etiology: In infancy, rickets; in adolescence probably late rickets, as in genu valgum, where the other signs have disappeared, or rarely cretinism, or possibly juvenile osteomalacia. Predisposing causes are inflammatory processes in the neck of the femur, either tuberculous or osteomyelitic, and also employments necessitating much standing or lifting of weights. Frequently an injury precedes it or aggravates the already existing condition. It is usually unilateral. Symptoms: The onset is insidious, pain, often felt chiefly in the knee, being the first symptom, then limping, with perhaps difficulty in kneeling and sitting. The pain is worst while the process is developing, but

while pain usually decreases the joint stiffness often increases progressively. Physical signs: Projection of the trochanteric region with a depression between great trochanter and glutei; thigh muscles usually atrophied; abduction of hip always limited, with tendency to adduction. Where the downward bending of the neck is combined with a backward displacement and rotation of the head the signs are more marked. The limb is then rotated outwards and adducted, while internal rotation and often flexion are impossible. The trochanter is above Nelaton's line in all cases. Prognosis depends on age. Before 5 years the deformity is due to rickets and may disappear spontaneously; after this age a functional improvement only is possible through adaptation to the new conditions. Diagnosis: From (1) forward dislocation of the head, (2) recent fracture of the neck, if after an injury there is great aggravation of the pain; (3) from old fracture with resulting deformity, (4) separation of the epiphysis, (5) congenital dislocation, (6) tuberculous disease. In the latter case the chief point is that though in early hip disease there may be slight external rotation, this is accompanied by abduction and flexion instead of adduction without flexion. Treatment: (1) Of any constitutional disease such as rickets. (2) Absolute rest in bed with permanent extension relieves the pain and improves the movements and helps spontaneous straightening in rickety cases. (3) When the case has gone on for some time and the difficulty of walking, etc., is great, some form of osteotomy (the author prefers linear of the neck) must be performed.

—Sem. Med., Jan. 29, 1898.

ELECTRIC APPLIANCES.

A somewhat recent addition to office armamentarium has been furnished by the McIntosh Battery & Optical Co., in what they style wall plate No. 6, and one of which we have been using. It consists of a marble slab arranged for galvanic and faradic circuits. A milliampere meter with an automatic rheotome and graphite rheostat controls the galvanic circuit, while the faradic is arranged with high tension induction coils and a vibrator, which may be regulated as to number of interruptions at will. The whole plate occupies a space of only 16 inches square and may be placed on a table or secured to a wall. The switches are conveniently placed and easily regulated. The plate may be connected with a 110-volt Edison circuit or to 40 cells of chloride of ammonium battery. Its operation and work is adapted to excellent office work.

OCEAN TRAVEL.

Ocean travel continues to be as popular, if not more so, than ever, especially at this time of the year. To illustrate the popularity of water travel during the spring months it is interesting to know that one of the coastwise steamers plying between Jacksonville, Charleston and New York arrived at the last-named port a few days since with 330 passengers aboard. These passengers consisted of tourists returning to their homes in the North, merchants coming to the New England and Middle States on business, and Southerners in general making a trip to the Metropolis.

When we consider the large amount of freight which a coastwise vessel carries, it hardly seems possible accommodations could be made for so many passengers. There is one steamship line operating between the above ports which perhaps does the bulk of the coastwise freight and passenger business, and when it is also known that all the rooms on this particular company's steamers are large, airy and contain two wide berths each, it will be readily seen that the carrying capacity of a coastwise ship is something wonderful.

Of course the popularity of a steamer has a great deal to do with the number of passengers carried; because a line that meets with public favor naturally draws a crowd sooner than one that does not use special means for the pleasure and comfort of their patrons. Again, a transportation company having access to both Northern and Southern

markets enables them to have their ships' tables provided with all the delicacies imaginable. This is another inducement and must be taken into consideration in arriving at the cause for the majority of the water passenger traffic on the Atlantic coast being carried by one line.

In addition to the other inducements offered the extreme courtesy on the part of a ship's officials leaves the pleasant memories already produced by the delights of an ocean voyage indelibly impressed upon the mind.

The culmination of a three-days ocean voyage during the spring months is a general toning up of the system, preparing it, so to speak, for the deluge of hot weather inevitable in the months to follow.

It is doubtful if any transportation company operating between the North and South has ever reached the climax of popularity attained by the Clyde Line, and when their new steamer "Comanche" arrived at Pier 29, East River, New York, recently with 330 passengers aboard the intense satisfaction shown on the faces of those who came to meet their friends was fruitful evidence that the latter had made no mistake in selecting the best line and the most enjoyable mode of travel.

COLOR TESTS FOR DIABETIC URINE.

Bremer says that both in diabetic urine and blood the color reactions do not depend on the presence of sugar. In two clean and dry test tubes 10 c.cm. of normal and diabetic urine respectively are placed; 0.5 mg. or less of finely rubbed up gentian violet is then allowed to drop on to the surface of the urine. In diabetic urine the superficial layers of varying depth are colored blue or violet blue, and this color does not disappear on shaking. In normal urine, even after shaking, no color, or only the faintest tra developed. Merck's gentian violet B is the best. In low temperatures the reaction is not so marked, hence in winter it is well to place the test tube in a water bath. The addition of mineral acids or sugar to normal urine will not lead to the development of this color reaction, which is really due to the presence of reducing substances in the diabetic urine. With urines of unusually low specific gravity under 1015 the reaction may approach that seen in diabetic urines. When, however, the reaction occurs in urine of high specific gravity the presence of diabetes is certain. If non-diabetic urine of moderate specific gravity gives a doubtful reaction due to the abnormal solubility of the violet-coloring matter, there is a disturbance of metabolism. The author adds that the reaction may throw some light on some of the many obscure points in the composition and chemistry of normal and diabetic urines.

—Centralbl. f. inn. Med., April 2, 1898.

Book Reviews.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In 20 volumes. Volume XIV, "Infectious Diseases." New York. William Wood & Co. 1898.

This addition to the series of the "Twentieth Century Practice" continues the infectious diseases and opens with an exhaustive article by Dr. F. Forchheimer, of Cincinnati, on scarlet fever. While there is very little new in the discussion of this disease the doctor has handled the treatment in a practical manner.

Measles forms the subject of the next chapter, by Dr. Dawson Williams, of London, who, with the characteristic zeal of English physicians, has given an excellent account of the disease.

"Chicken Pox," by Dr. Dillon Brown, editor of "Pediatrics," forms a short chapter of considerable interest.

"Glandular Furio" follows, by Dr. Dawson Williams, and is also a short chapter of value.

"Whooping Cough" is the subject of an excellent paper by Drs. Joseph O'Dwyer and Nathaniel Read Morton, of New York, the treatment of which is exceedingly interesting.

"Cholera Infantum" forms the succeeding chapter, by Professor A. Jacobi, of New York, which, as might be expected, is a resume of the proper feeding of infants.

"Cholera Nostras" and "Asiatic Cholera" form two succeeding chapters, by Professor Theodore Rumpf, of Hamburg, the latter of which occupies the larger portion of the volume and is as masterly a paper on the subject as can be found to-day.

"Dengue," by Sir Joseph Fayrer, of London, and "Beriberi," by Dr. A. A. De Azeredo Sodre, of Rio Janeiro, follow, and are valuable papers.

"Military Fever," by A. Netter, of Paris, and "Malta Fever," by Dr. David Bruce, of the British Army, close the volume.

We are impressed more and more with the value of this series of medical literature as the work progresses and trust all our readers realize the importance of so great an undertaking by the publishers as the production of a series which is a library in itself.

MILK. By E. F. Brush, M. D., Mount Vernon, N. Y. Published by Wynkoop, Hallenbeck, Crawford Co., New York.

This monograph is a collection of papers and essays by the well-known author, who has been a pioneer in the cause of pure milk, not only for children and nurslings, but the healthy and invalid adult as well.

The doctor deals with the milk problem in all its phases and comments on the dairy care and its dangers. To those interested in the welfare of nursing children and their treatment through the hot summer months it would be advantageous to obtain a copy.

HUMAN AND BOVINE TUBERCULOSIS. By E. F. Brush, M. D., Mount Vernon, N. Y. Published by Wynkoop, Hallenbeck Crawford Co., New York.

This is another monograph on tuberculosis by the same author, and contains many of his papers on this subject, including that famous for its title, "What Must We Do to be Saved from Tuberculosis." In the preface the author states that the demand has been so great for reprints of these various papers that he has concluded to put them into book form. The subject is full of interest.

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Original

HOW SHALL WE TREAT MEASLES?

BY LOUIS FISCHER, M. D.

Professor of Diseases of Children at New York Clincal School of Medicine.

It is rare for the average physician of to-day to be called to a case of measles. If, however, the physician should be favored by the laity by being called to such a case, then it is proper to observe certain stringent measures, for, unhappily, popular opinion prevails to such an extent that a case of measles is regarded as a very trivial affair. It is wise, therefore, to warn all parents or nurses in charge of such a case, the dangers to which a given case of measles is exposed.

The diagnosis of the disease is so simple that the average mother's diagnosis can be taken for granted; but then, certain little neglects or oversights on the part of the attendant or nurse and our little patient may retain one of the most disagreeable complications throughout life.

The treatment must be considered under the following heads:

First. Hygienic.
Second. Medicinal.
Third. Prophylactic.
Fourth. Dietetic.

The Hygienic treatment consists in having the temperature of the room between 70 and 74 degrees. This being somewhat more than normal is sufficiently warm for all general purposes.

The writer was very much impressed with the cool, clean wards of the especial pavilion devoted to this disease while visiting the Children's Hospital, of Berlin. The first thing that impressed me was the fact that modern methods have taken the place of the former ideas of light. For example, while children are put into the general ward, the tempera-

ture is as above stated, with the back to the light, still it was noticed that the windows were not curtained, but that a free amount of sunlight was permitted to enter. The ventilation was carefully carried out, so that a cool current of air constantly permeated the room. Each patient received a tepid bath every morning over the whole body, whilst the eruption was at its height. Great attention was given to the proper changing of room and bed clothes, so that the result of the excessive perspiration was not noticeable.

MEDICINAL TREATMENT.

This consisted in producing diaphoresis, especially in the prodromal stage. In order that the eruption was brought out, a favorite prescription in this condition is the following:

R—Spir. mindereri .....iz. ii
Sig.—One dram every hour to a child 3 to 5 years old. Patients below 3 years old receive half a dram every two hours.

It is just at this prodromal stage of the disease that great attention must be given to the bowels, consequently the slightest form of constipation must be modified, and therefore my plan is to give small doses of calomel—one-tenth of a grain to a child 1 year old, adding one-tenth more for each year, until a child 10 years old will receive one grain every three hours until the desired effect is produced.

Hyperexia must be carefully managed, especially so, as these little patients have a tendency to convulsions. The moment the temperature reaches 105 (rectum) my plan is to put both feet into lukewarm mustard water, and give a mustard foot bath of two or three minutes' duration.

If the fontanelle pulsates very strongly, either ice-cold cloths or an ice bag applied at the top of the head over the fontanelle will relieve this condition, and sometimes induces sleep.

A leech applied at the alae nasi will modify cerebral hyperemia.

For the relief of intense thirst, if the tongue is parched, besides having this febrile condition, nothing is more gratifying to quench the thirst, and then at the same time have a laxative effect, than frequent doses of the ordinary citrate of magnesia.

Great care must be given to all complications as they arise. Thus all symptoms of running ears or catarrhal eyes must be given proper weight and consideration.

Many a case of blindness can be traced to a neglected ophthalmia during the course of a malignant form of measles.

The lungs require especial attention. Knowing as we do that all mucous membranes participate in this disease, the lungs must be protected with suitable flannels and expectorants be given to relieve both the cough and loosen the expectoration.

One of my favorite prescriptions is the following:

R—Ammon. bromid.
Syr. liquorit.
Tinct. opii camph.
Syr. althae.
Aqua foeniculi, q. s., ad. M. D. S.
Teaspoonful every two hours for a child 3 to 6 years of age. Younger children receive one-half the dose.—L. Fischer.

If care is taken and no gastric disturbances permitted by errors of diet our case will usually terminate favorably. If, on the other hand, we notice a persistent high temperature, high in the morning as well as in the evening, extending over a period of several weeks, then it is a good plan to suspect the possibility of an empyema. This is one of the most frequent complications encountered in the course of this disease, and should be well borne in mind. Great care should be taken to percuss, palpate and osculate every part of the thorax. If, however, we find no diminution in the area of breathing and can exclude positively the existence of an empyema, then it is well to look elsewhere for possible complications.

The next commonest complication in the course of measles is usually an otitis media purulenta. It is self-understood that the throat must be inspected regularly, and it is only by constant inspection that we can exclude the possibility of diphtheria or diphtheroid diseases. We must not lose sight of the fact that frequently a laryngeal stenosis encountered in the course of this disease

must not necessarily be due to diphtheria or to pseudo-membranes.

The writer was recently called to see a child in a consultation, and was requested to perform intubation of the larynx, when a careful examination revealed the presence of a retropharyngeal abscess. The abscess was opened in the usual manner, and after the pus was evacuated the stenosis disappeared.

The writer has followed the plan of anointing the body with carbolated vaseline after giving a sponge bath (tepid) every day until the eruption and consequent desquamation have entirely disappeared.

It is also a good plan to change the child's linen once in 24 hours.

For the relief of thirst encountered in the course of this disease, it is well to give acidulated water, either dilated hydrochloric acid, ten drops to a tumblerful of the ordinary boiled (sterilized) water, or, which is equally as good, ten drops of diluted phosphoric acid to a tumblerful of water. This can be given ad libitum. It is self understood that the strictest form of quarantine be maintained, not only during the course of the disease, but also during the convalescence. It is a good plan not to allow healthy children near those convalescing from measles until about six weeks after the eruption first appeared.

One point worth noting is to guard the eyes during the convalescence, as well as during the height of the eruption. For this purpose washing the eyes and ears and the nose with a weak solution of one to five thousand of bichloride of mercury is very beneficial. The bed clothes and all clothing from the sick room should be thoroughly disinfected, and it is advisable to put some chloride of lime or crude carbolic acid into all the discharges from the bowel or bladder before removing them.

—187 Second ave., New York City.

CHRONIC INTESTINAL INDIGESTION IN CHILDREN.*

By S. HENRY DESSAU, M. D.,

Professor of Pediatrics, New York School of Clincal Medicine.

Chronic intestinal indigestion, according to my opinion, based upon an extensive observation and experience in pediatrics, is one of the commonest disturbances of health to which children are subject. It is therefore surprising that it has not been more widely recognized by authors as a distinct disease entity, for until very recently its various manifestations and most prominent symptoms have by custom been described and treated as separate diseased conditions without regard to their identical cause.

Chronic indigestion in the adult is usually gastric; in children, however, the rule is that gastric indigestion is acute in character, while the chronic form is invariably intestinal. This is readily explained both upon anatomical and physiological grounds. The position of the stomach in young children is more perpendicular than transverse to the axis of the abdominal cavity, so that it may almost be compared to a pouch or dilatation of the upper intestinal tract, and there is likewise deficient development of its function in early life. Hence it follows that the contents of the infant stomach are propelled into the intestines proper with uncommon ease, and the greater part of digestion is in consequence carried out by them. The part performed by the intestines in the process of digestion has previously been regarded as secondary in character. Since the report of the operation of entire removal of the stomach by Schlatter and the survival of the patient, there can no

*Read before the Pediatric section of the New York Academy of Medicine, April 14, 1898.

longer be any doubt that the intestines can be depended upon alone for the entire act of digestion. Undoubtedly the infant stomach is called upon to perform its share in originating the digestive disturbance owing to conditions peculiar to its histological formation. The muscular fibres of the gastric walls are weak, and when we consider the tendency of the average parent or nurse to follow as a maxim "the larger the quantity the larger the growth," quality being a minor consideration, it will easily be understood how exhaustion followed by dilatation of the stomach occurs. The ordinary mind seems impressed with the idea that eating means health, therefore the more a child can eat the more certain the degree of health. This idea pervades every class of society and pertains to every age of the child up to puberty. When food is taken into the infant stomach too often and in too large quantity, either it is hurriedly propelled into the intestines before proper preparation can occur, or it remains in the stomach to undergo putrefactive fermentation, because the weak muscular power of the stomach has become exhausted from too continuous work without the needful intervals of rest. As a sequence of physical laws, temporary distention and finally permanent dilatation is established with attending impairment of physiological function. From the date of this event in the evolution of the difficulty the entire digestive act goes wrong. It matters not now whether the food is of improper or of the most approved quality, though starchy foods will undoubtedly increase the difficulty, the result will be the same. The food which at first was hurriedly passed into the intestines without due preparation by admixture with the gastric secretion is now in addition thereto contaminated with abnormal products of putrefactive fermentation derived from food that has remained in the dilated stomach, unable to empty itself on account of exhaustion. The presence of these abnormal products in the intestines act as irritant agents and when continued from day to day finally establish an alteration of the blood circulation in the mucous membrane, or in other words a congestion. It must be borne in mind that this process is necessarily gradual or chronic in its approach, and for this reason gives an entirely different clinical picture from an acute process. The mechanism as just outlined will aid in explaining the evil of over-feeding in infants and to a partial extent in older children, for I regard this error as the great source and origin of indigestion of childhood. This view of the gastric origin of indigestion appears confirmed from the fact that infants who regurgitate or puke the food do not so far as my observations extend suffer from intestinal indigestion. Nature seems to protect them. The character of the food however must not be overlooked as having an important influence in the causation of intestinal indigestion in children. And more especially does this concern the method of preparation when starchy food is given.

While there may be an honest difference of opinion amongst pediatricians as to the propriety of allowing starchy foods to children at too early an age, that is, prior to dentition, granting the presence of salivary secretion or the power of the buccal mucous secretion to convert starch into dextrose, there can be no question of the fact that if the starch is not cooked sufficiently long to insure rupture of the cellulose capsule of the starch granule no ready conversion into dextrose can occur. Under such conditions, which are more likely than unlikely to exist, the starch granule undergoes fermentation in the intestines and in the decomposition of its chemical elements, acetic acid among other products is evolved and plays a leading part as an active irritant to the intestinal mucous membrane. Be the character of the food, however, the most suitable, even the mother's milk, unless the influence of the common evil of over-feeding be recognized and prevented, sooner or later infantile digestion will be deranged and its clinical features will be chronic in form and intestinal in anatomical location.

In older children who may have escaped in infancy the liability to develop chronic intestinal indigestion from over-feeding is increased if a neurotic constitution has been inherited. I have come to the opinion that the offspring of gouty parents are very likely to manifest the neurotic constituion; also those children descended from a long line of neurotic ancestors who may have had gout. In these children, I think, the character of the food, as well as the quantity and method of preparation, may be regarded as having an important bearing in the causation and development of chronic intestinal indigestion.

The young of every species of the animal kingdom naturally demand animal food for their best nourishment and growth. But as the child advances in age a mixed dietary best fulfills physiological requirements, the main proportion of which diet should be adapted to what is best for restoring physiological waste force and energy. The carbo-hydrates and hydro-carbons in proper proportions have time and again been proven by physiological experiment to be most appropriate for such need in children. An excess of nitrogenous food on the other hand would in their case prove a luxus of nutrition, as there is in them no great waste of muscular force. Consequently an excess in uric acid in the blood and tissues would eventually be likely to occur, and this in addition to that which is normally found in children of neurotic and gouty parents would certainly have a pernicious influence. For this reason it is a good rule to follow in the nursery to forbid an abundance of butchers' meat, over-indulgence in which can only tend to hasten the development of chronic intestinal indigestion through furnishing an excess of uric acid, which, entering the general circulation, acts as an irritant to the vaso-motor nerve centres, both directly by alteration of the blood circulation in the areas they control, and indirectly through creating a condition of extreme sensitiveness to any additional irritant affecting outlying areas. The ready susceptibility to coryzas from sudden changes of temperature or to enuresis from the presence of uric acid crystals in the urine are familiar illustrations of the latter.

In a limited number of cases the seat of the intestinal disturbance may be confined to particular portions of the canal, and perhaps it is on this account that the affection has been casually referred to by Rotch as "duodenal indigestion." I prefer, however, to regard the entire length of the intestinal tract as being involved in the disturbance, as a rule, which view is borne out by the clinical symptoms.

It may become manifest in the course of this article that the lower bowel will often show signs of involvement, may be of a secondary nature, from both direct and reflex irritation. I refer to prolapse of the rectum and vulvo-vaginitis.

In considering the pathogenesis of chronic intestinal indigestion in children it will be necessary to bear in mind that the result of the action of foreign or abnormal matter, as the stomach contents of over-fed children before described, upon the mucous lining of the intestine is of far greater intensity in infants and children than in adults. That is to say, an increased flow of mucous secretion, which normally is greater and contains a larger proportion of mucin than in adults, is more easily produced. This is due to certain histological laws which provide the connective tissues with an increased amount of mucin for the nourishment of basement membrane cells. Hence it will be readily understood how an excessive secretion of mucous, rich in mucin, will be produced in the intestinal canal from the action of even slight irritants. This increased amount of mucin in the connective tissues of the young of the human species has its analogue in certain animals of the lower order, as the calf and pig, in the larger proportion of gelatine found in their connective tissues. The great susceptibility of children to infectious diseases involving principally mucous membranes, such as diphtheria, measles and pertussis, is in a measure explained from the fact that children furnish a large amount of

mucin in the mucous secretion which is a natural medium for the growth of the bacilli of these diseases. It also explains in a measure the immunity of older individuals to contagion or at least a diminished danger of a fatal ending, for where the bacilli thrive best a larger amount of toxin is naturally evolved.

The bacilli that are always present in the intestinal canal, as the colon bacillus, bacillus proteus vulgaris and lactic acid bacillus,together with those introduced from without with the food, have a most excellent medium in the profuse mucus secretion so rich in mucin, in which to thrive to the highest degree, and it is reasonable to believe that this favorable condition for their growth allows them to acquire a certain amount of virulence. Granting this conception of the pathogenesis of chronic intestinal indigestion to be true, it can scarcely be denied that sufficient toxins or tox-albumins, according to Mathieu, are produced in the intestinal canal, which, becoming absorbed, give rise to a group of symptoms which we recognize as an intoxication of auto-infection. It may also be possible that these organisms or enzymes are chiefly responsible for the abnormal decomposition of carbo-hydrates, which, liberating an excess of acetic and carbonic acid in the intestinal tube, not only increases the normal flow of mucous secretion, but at the same time partially coagulates it on account of the large proportion of mucin contained, rendering it thick and tenacious, thus adding another factor to the difficulty of the normal mechanism of intestinal digestion. Moreover, according to Buchman, the effect of the large amount of carbonic acid gas liberated is to produce a paralysis of the intestinal tissues, especially the villi of the lining coat. The combined deleterious agency of the altered mucous secretion and paralysis of the villi now plays a highly important part in preventing contact of the food with the intestinal juices and at the same time interferes decidedly with peristalsis of the intestine, so that further fermentation followed primarily by spasmodic contraction and secondarily by distension of the bowels results, with attending constipation, the acknowledged abhorrence of pediatricians.

Furthermore, the increased amount of altered mucus provides a congenital nidus or natural soil for the development of entozoa, the ova of which are liable to be conveyed into the body through drinking water or certain uncooked vegetables, as lettuce, cabbage, etc. The presence of intestinal worms form a complication of chronic intestinal indigestion in children to which the general symptoms are often ascribed, but as Eustace Smith well says, "it is to the digestive disorder and not the entozoa only that the symptoms are really due."

Children who have suffered previously from chronic intestinal indigestion and who become victims of an infectious disease, have their symptoms markedly aggravated while others who may have been formerly free and thereafter more easily disposed to develop the disorder. In fact, Eustace Smith, calling chronic intestinal indigestion "mucous disease," attributes its origin prncipally to the influence of an attack of pertussis, as he says it is often observed as a sequence of this disease. In my observations only a limited number of cases have presented such a history. It would appear that the invasion of the mucous membranes of children by bacilli of infectious diseases has the remote effect of influencing in some unknown way the disposition of these mebranes to secrete an abundant flow of mucus for an indefinite period thereafter.

In describing the signs and symptoms of chronic intestinal indigestion I shall take the liberty of quoting freely from the article on mucous disease in Eustace Smith's work on diseases of children. These symptoms refer mainly to children who have completed their first dentition, the disorder in infants, of course, not having developed to the same extent. The general appearance of the child is one of disturbed nutrition. It is languid and pale or has a dingy, sallow complexion. The circulation of the extremeties is

often poor; the hands and feet in older children being cold and blue. There is often some discoloration under the eyes. The skin becomes rough and harsh over the arms, chest and abdomen, and in advanced cases there is loss of flesh. The mother will state that the child becomes easily tired and there is frequent deep sighing respiration. There is an irritation about the nostrils and anus and picking at the nose or rubbing the seat will often be noticed.

The sleep is restless and disturbed. The child tosses his body and kicks off the bed clothes, grinds his teeth and either talks in his sleep or has attacks of night terrors, when he wakes up in a violent panic, sometimes leaping out of bed. There is a history of suddenly turning ghastly pale as if about to faint, in fact there are often fainting spells. A curious irritability of temper is a characteristic feature. The child is capricious and fretful, often crying without cause. It will quarrel needlessly with companions and is sometimes quite a torment in the nursery. The appetite may be fairly good, but for the most part a little food at the beginning of a meal satisfies the child, as the discomfort of abdominal distension or pain soon follows the first few mouthfuls and interferes with further appetite. Thirst is often noticed and occasionally a craving for acids. The abdominal pains are often a prominent symptom. The attacks are sometimes very severe, coming on suddenly during the evening or in the early morning before breakfast. They are usually referred to the umbilical region and travel across the abdomen to the left side or splenic flexure of the colon. Occasionally they are located over the hepatic flexure of the colon. The tongue presents a peculiar and characteristic appearance. It has a moist, glossy, gum-coated look, is often covered with a thin gray fur, thicker at the base, and the papillae at the side, although not prominent are unusually distinct. Often there is a denudation of epithelium in sharply defined patches, the fungiform papillae in the stripped area being large and prominent. This condition of the tongue, only in a more exaggerated form, has been described by Butlin as "wandering rash of the tongue," its origin not being certain; but from close observation, based upon the study of numerous cases, I am convinced that it belongs to the chronic intestinal indigestion of children. The urine is at times cloudy with phosphates or contains large quantities of uric acid and oxalate of lime crystals and indoxyl potassium sulphate, which is converted into indican by Jaffe's or Obermeyer's test. Herter in a recent article in the British Medical Journal attributes an excess of the latter to a greater increase of the colon bacillus. There is no regular progression of symptoms. Sometimes they are better, sometimes worse. The patients may be subject to intercurrent attacks of acute gastric indigestion attended with mawkish breath, a moderate rise of temperature and general febrile symptoms lasting several days. There may be at these times spells of vomiting of considerable quantities of thick mucus with looseness of the bowels, the movements containing thick mucus apparently passed at the end of stool. As a rule, however, there is constipation and the stools are coated to a greater or less extent with mucus. In a few cases I have seen the stools containing sand-like matter, consisting of phosphates and carbonate of lime, resembling, as Ewald says, "frog spawn." In the infant constipation is one of the chief symptoms. The stools are pasty or sticky in consistency and light yellow in color. There is rarely any mucus present. Prolapse of the rectum is a frequent complication of severe forms of constipation and I regard this manifestation, as well as others to be later mentioned, as due to the general condition, from the fact that unless of very long standing it disapears without any other treatment than that directed to the state of the entire intestinal canal. Neiher do I pay any especial attention, other than that to be mentioned under the head of treatment, to such complications as night terrors, enuresis, catarrhal vulvo-vaginitis or peculiar reflex conditions as cough or weakness of definite groups

of muscles,* after other influences, as preputial adhesions in enuresis or an infectious source in colpitis, have been eliminated. A dry, hacking cough sometimes encountered in advanced cases may possibly gise rise to a temporary suspicion of pulmonary tuberculosis, especially as the patient at this period is losing flesh and color, and is first seen while having a rise of temperature. This suspicion may be soon allayed when it is found that the evening rise of temperature is not steady and prolonged, as it invariably is in tuberculosis. Moreover, if there is serious doubt the tuberculin reaction may be employed without harm. (See Dr. Brown's article in Pediatrics, March 1, 1898.)

Whenever the presence of worms in the intestinal canal are suspected and none have been seen expelled it is well for the purpose of a definite diagnosis to pass a male elastic web catheter into the rectum, when sufficient matter can be brough away in the eye of the catheter for examination under the microscope to determine the presence or not of ova. These are readily recognized with a low-power lens; that of the ascaris being large and round, the oxyuris smaller and oval in form.

The group of symptoms associated with chronic intestinal indigestion of children which most nearly resemble the clinical picture of an autoinfectious intoxication are undoubtedly frequently mistaken for a so-called irregular type of malaria, and this mistake has the sanction of tradition so strongly impressed upon it that it has almost led many good observers to believe that an irregular type of malaria can exist without the evidence of the presence of plasmodium in the blood. I believe with Osler and others that we are not justified in making a scientific diagnosis of malaria without the testimony of the plasmodium. Besides this there is in chronic intestinal indigestion no feature of periodicity in the symptoms, which is characteristic of malaria, neither is it limited to season, while malaria arising from heat, moisture and vegetable decomposition should by right thereof not be expected in midwinter.

A striking coincidence, that time may prove to be something more, has been observed by me in the association of adenoids of the pharyngeal vault in young patients subject to chronic intestinal indigestion. It was mentioned in an earlier part of this paper that it was possible for an excess of uric acid in the blood, as a result of over-feeding with nitrogenous food, to influence the circulation in certain local areas, though the irritant effect of the uric acid upon the vaso-motor centres controlling those areas. It seems to me that this is more than likely to occur in reference to the mucous membrane of the naso-pharynx in subjects of a lymphatic or strumous constitution who are affected with chronic intestinal indigestion. Certainly it is well known that these patients contract a catarrh of the naso-pharynx more easily than others, and not a few present the same group of reflex symptoms found in chronic intestinal indigestion, even after adenoids have been removed. I refer more especially to enuresis, which has been considered by the laryngologist as a possible manifestation of adenoids. Other symptoms, as sudden atacks of difficult respiration and nervous cough, which were not relieved by the removal of existing adenoids, have been noticed by Mulford.** In regard to enuresis the general disorder of digestion that gives rise to this

*I saw the following unique case several years ago: A girl 13 months old, who had just begun to walk by holding onto pieces of furniture, was noticed suddenly to refuse to stand upon her feet, the attempt causing her to cry as if in pain. Careful and repeated examinations proved that there was no affection nor injury of the joints or muscles. The child looked over-fed, had a large belly, but otherwise no sign of rickets, and upon close inquiry this proved to be the case. Her diet was reduced in quantity and regulated and within a few weeks she resumed her attempts at walking and soon after could walk alone. She later on developed more marked symptoms of intestinal indigestion and though now four or five years old does not improve, owing to parental indulgence.

manifestation makes it possible for adenoids to be developed.***

Diagnosis must depend upon exclusion and the history, together with the clinical picture which the manifestations and symptoms present.

Although chronic intestinal indigestion of children is so common a disorder it is not so easily gotten rid of when once well established. This fact should be most vigorously impressed upon the parental mind, for after all more depends upon the faithful execution of precise instructions in the management of diet and other hygienic requirements than upon any remedies the physician can prescribe, though these will always prove of great assistance.

A few hints are here offered as to the proper management of the quantity of food, and rules to be followed, in order to avoid over-feeding and indigestion in infants. Infants up to four months of age, whether wet-nursed or artificially fed, should not be given more than four ounces at a feeding nor fed oftener than at two-hour intervals during the day, and four hours at night; six ounces from four to eight months of age every three hours during the day and once at night; eight ounces from eight months of age and upward every four hours during the day and once at night. When a mixed diet is begun the starchy foods—as oatmeal, barley, wheaten grits, etc., should be cooked for not less than one hour, and never more than four ounces or what is equivalent to two large tablespoonfuls be allowed as a portion.

With older children milk should form the usual beverage instead of tea or coffee until 7 years of age. Stale bread toasted, or a crusty roll should be used instead of soft or fresh bread. Meat, not overcooked or fried, should be allowed at one meal only, preferably the midday meal, and then not every day. Cheese, pastry and any form of boiled dough should be forbidden. Sweets should be permitted in only insignificant amount, and then as a reward for good behavior or the bestowal of a great favor. The child should be watched at table and instructed to eat slowly, chewing the food well before swallowing. It should never be encouraged to eat more than the natural wants of its appetite and should never be compelled to eat what is distasteful to it, though debarred from eating what may be deemed as unwholesome. Drinking of pure water that is not too cold between meals should be encouraged. Wines are uncalled for.

For children suffering from chronic intestinal indigestion all starchy foods, as potatoes, corn, rice, and the breakfast cereals, except in the most limited quantity, should be forbidden unless one of the amylolitic ferments, as diastase or takadiastase is previously added, as these foods only tend to add to the abnormal fermentation going on in the intestines. Coffee and tea are to be condemned, also fats and sugar, except in the smallest amount. Meat wil be found to agree better for a time, until the digestive functions are restored, but it should be eaten in a solid form, not as soups or extracts.

Hydriatics, in the form of warm, wet packs, followed by a cold sponge douche of 60 degrees F. to the spinal column and abdomen with brisk friction, as recommended by Baruch, are admirably indicated to promote oxidation of tissue and elimination of waste matter. Cold, wet compresses to the abdomen, followed by massage along the line of the colon will be

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**Dr. H. J. Mulford, in the Medical Record, January 23, 1897, in an article on "Diathetic origin of tissue overgrowth in the pharynx of the child," expresses the view that adenoids in many cases, if not all, are due to an inherited diathesis. In two cases which he gives as an illustration of this view, the urine was of high sp. gr., loaded with urates, uric acid and oxalate of lime. There was also obstinate constipation. Both were operated upon for removal of adenoids and were only improved after general treatment, directed toward correcting the nutrition, was resorted to.

***Atlhough I have seen only a limited number of cases of appendicitis in children, nevertheless, as we have had brought to our notice the influence of intestinal indigestion in adults as an important primary etiological factor in the development of this disease, why may not the same conditions apply to children as a cause of appendicitis? This is a reasonable inference and worthy of further investigation.

found a valuable aid in constipation of infants. Rectal irrigation with Kemp's tube and water at 100 degrees F. is a most efficient means of relieving the attacks of abdominal pain. In infants the principal indication for the use of drugs will be to relieve constipation and flatulence. For this purpose I have come to regard calomel and bismuth as the only drugs worth calling attention to, though I am well aware that many other remedies are highly prized. When calomel is given in doses from 1-20 to 1-10 of a grain in the form of tablet triturates every two or three hours for from three to five days at a time and again resumed after an interval of a week or ten days, I have never seen it fail to have a happy effect in relieving constipation in infants.

Where there are indications for the use of an intestinal antiseptic, such as excessive flatulence or an eruption of urticaria I regard bismuth either in the form of subnitrate, subgallate or beta-naphtol bismuth as the type of this class. It can be given during the period of the administration of calomel or alternately during the interval in doses of five grains three times daily.

After dentition has been completed I prefer the use of a tonic-laxative, which, in my experience, seems to have been best devised by the combination of cinchona and nux vomica with senna or cascara sagrada. To this tonic-laxative I have long been fond of adding spigelia, a remedy that has a classical reputation as a reliable anthelmintic. But it is not to this effect of spigelia that I attribute its valuable virtues in the treatment of chronic intestinal indigestion in children, for it was well-known by the older generaton of Southern physicians that in doses less than those employed as an anthelmintic it was one of the most reliable remedies for correcting the disposition to breed intestinal worms. Moreover, it has the reputation, and I think, with sound claims, of being a tonic to the right heart and perhaps the entire portal circulation. At all events, when added in moderate doses to the tonic-laxative, as in the formula given below, it appears to exercise a most beneficial influence in arresting the immoderate secretion of mucus, diminishing flatulence, relieving the sighing respiration and removing the many nervous phenomena.

The formula I employ, which may be called a working basis, is composed of

R—Ext. spigelia fld. grams.
Ext. senna, fld. ...aa fl. dr. ii or 7.50
Ext. cascara fld.....fl. dr. i or 3.75
Tr. nux vomica.....fl. dr. i or 3.75
Tr. cinchona comp..fl. dr. iv or 15.00
Syr. sarsaparilla comp. ad.
fl. oz. ii or 120.00
M. Sig.—One ounce ter in die.

After an infectious disease has aggravated the symptoms two grains of potassium iodide may be added to each dose; where sleep is greatly disturbed, as in night terrors or enuresis is troublesome, three to five grains of sodium bromide can be added to each dose. When the lower bowel appears to be involved and prolapse of the rectum occurs three to five drops of the fluid extract of hydrastis may be added to each dose with good results. Eustace Smith recommends with much enthusiasm the compound decoction of aloes of the British pharmacopeia as a tonic-laxative, but I am not acquainted with the preparation.

When anemia has occurred and the tongue is not too much furred the employment of iron in some form is indicated, and I alternate the use of the spigelia mixture, for a month at a time, with the elixir of the manganate of iron, which is a pleasant and efficacious pharmaceutical preparation. Without the help of iron no permanent impression seems to be made by tonic-laxatives, therefore it becomes a most important agent in the treatment, not only for the anemia but the disease itself.

At any time when the round worms or their ova are in evidence, santonin in one-half grain doses, either with or without calomel and given three times daily, or the combination of fluid extract of spigelia and senna in teaspoonful doses night and morning for one or two days will be found efficient as vermicides.

The system of medication in a chronic disorder such as intestinal indigestion is worthy of considera-

tion. It is well to continue the remedies mentioned, in alternating courses of three weeks with each other, for a period of three months. After the lapse of three weeks or a month they should be resumed for another three months in the same manner and these courses may be repeated with advantage several times.

In presenting the subject of chronic intestinal indigestion in children it has not been with the idea of introducing anything new, further than the name, whch to the writer seems to aid in bringing many manifestations, that, as stated at the outset, have formerly been considered and treated as distinct disease entities, under one common head. In this way a clinical picture is presented which it is hoped can be easily recognized, with satisfaction to the physician and advantage to the patient.

—144 West Eighty-fifth street.

Editorial

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ON THE EVOLUTION OF THE ANTISEPTIC METHOD IN SURGERY.

In a recent contribution in our rising and able contemporary, American Journal of Surgery and Gynecology, we find our distinguished transatlantic neighbor, Mr. Lawson Tait, still banging away at the antiseptic doctrine, and vivisection in particular.

There is more truth than poetry in much of what Dr. Tait says, but he is an extremist and intolerant of others' opinions; besides, we may read between the lines that he is an uncompromising foe of vivisection, as we gather from the following:

"When we come to consider man we find all our facts at sixes and sevens and all theories of no avail. The laboratory fails utterly, and whilst in the processes of his body we may see verisimilitude with those of the lower animals, we are met at once by facts which show they are not. Bennett and Rutherford made hundreds of experiments in making biliary fistulae in dogs and they had an enormous primary mortality, whilst the same operation in the human being has practically no mortality at all. If successful in the dog to the purport of diverting all his bile into test tubes, the dog dies inevitably of starvation. If the same result is obtained in the human subject he or she fattens on the loss of bile and suffers in no way from it save in the trouble of skin excoriation. The common femoral artery of a large dog will be closed by four hours' temporary metallic compression, whilst 40 hours of the same pressure cannot be depended upon to close a human artery of the same size. Not only this, but human beings alive differ in their individual results from exactly similar conditions in ways altogether irreconcilable with the laboratory facts of bacteriology."

The above quotation stamps its author as a hide-bound bigot, who, like the mole, does not see, not because he cannot, but because he does not want to see.

The whole world knows that the modern stupendous progress of gastro-intestinal surgery would have been impossible without animal experimentation. He might as well tell us that we may become accom-

plished anatomists without dissection. What he says of Bennett's and Rutherford's experiments won't hold, because they worked without antiseptics and tried to bring the common duct into the incision. It does not appear that this ever has been accomplished successfully in the human being. It is true that we may drain off the bile of the human being for a few days with impunity, but there is no case on record where a patient "has been fattened" by carrying off all his bile permanently through a fistulous opening.

In all cases of cystic impaction or occlusion of the cystic duct, when the gall blodder is opened, while some bile will drain away, its great volume readily descends into alimentary canal.

Ballance, Murphy, Senn and many others have repeatedly demonstrated that the deductions made from experimental studies on the lower animals were applicable to man, and in my own studies on the transfixion ligation and the homologous ligation of vessels divided, or in continuity it was repeatedly proven that in every particular we might extend our conclusions from the living, healthy animal to the human being.

Yet, with this much said it must be confessed that the trenchant blows of the Scotch surgeon have had a most salutary effect on the antiseptic fetich, when carried to an absurd extent. Tait shows, beyond question, that common sense, common cleanliness, good housekeeping and proper hygiene do the work and not the paraphernalia of the modern show. He has repeatedly demonstrated that the best results from an operation may be realized in any well-ordered domicile, and that the hospital is in no sense necessary except for the impecunious and dependent.

Let us then, while we cannot support Mr. Tait's hostile attitude towards the laboratory, nevertheless commend his manly independence and aggressive attitude against the many modern shams which are foisted on us in the name of science.

T. H. M.

TUBERCULOSIS AND PNEUMONIA.

The recurrence to first principles which characterizes the major portion of our modern treatment of disease is one of the most valuable signs in demonstrating the trend of common sense which underlies scientific investigation. We wander far a-field in striving to discover new remedies based upon bacteriological researches, but after completing the circle we find ourselves at the starting point wiser and more experienced men. In no department of therapeutical observation can this assertion be more practically and definitely made than in the treatment of two common diseases, viz., tuberculosis and pneumonia.

In the first named we have "rung all the changes." We began with cod liver oil, and we are still striving to find a panacea for the many disease manifestations which we class under the generic name of tuberculosis. Injections of serum are the latest therapeutic resource utilized in this direction. It is still in the experimental stage and liable to remain so, for in the idea from which it originated, as well as in its execution, it does not strike at the root of the causation of pulmonary tuberculosis. It may destroy the bacillus, but it does not remove the imperfect nutritive reaction which forms the basis upon which the disease is established.

The presence of the bacillus is but one of the phenomena which arise in the development of the disease. It is in the alleviation and cure of that pretubercular stage which exists in almost every form of phthisis, that our best efforts must be direct-

ed. We pay too much attention to the bacillus, and too little to the patient. The injections of serum may destroy the bacilli, but they can never restore the delicate structure of the lungs to its original condition. It will not disintegrate the exudation products in the alveolar walls nor absorb the epithelial elements in the cavities.

It is the heart and the stomach, as well as the lungs, which must be considered in the treatment of tuberculosis, and the matter of personal equation is of the first importance. Each case has to be studied solely upon its own merits and irrespective of its relation to a similar type of the disease existing in other people. When the initial symptoms of wasting anemia, increased frequency of the pulse (in the majority of cases a constant sign), unaccompanied by a cough or the usual physical signs, declare themselves, then we should, with the aid of judicious exercises in the open air, the administration of hematurics and nourishing food, keep the patient's health up to the highest standard. This is the pretubercular period when we are at a loss to say definitely that our patient will develop phthisis, but we do know that in the application of the common sense principles advocated above we put him in the best condition to fight such a contingency. The ordinary physician is too careless in making a sufficiently exhaustive examination to really discover in an ambulatory patient whether he has a latent tuberculosis or a mere indisposition. The gums should be carefully examined for the presence of the red line, the intercostal spaces should be pressed upon, for oftentimes when there is much sensibility of the pulmonary parenchyma, pain will be complained of, and in every suspected case of phthisis, after malaria has been excluded, the spleen should be thoroughly investigated, and if found enlarged in conjunction with the paleness of the pharynx and the other signs noted above, there is a strong probability of slowly developing tuberculosis.

Pathological researches in pneumonia have been accompanied with much success, but so far as the successful treatment of the patient is concerned, they have furnished nothing definite. If the human system could only be converted into a mechanical laboratory where experimental investigation would at all times be accompanied with the same results, then the theories of the chemist and bacteriologist would be rapidly converted into concrete facts. But unfortunately disease is not the same in all individuals, and if it is the same its manifestations are likely to be entirely different. And as it is with individuals so it is with toxins generated in pneumonia. They are not always of the same strength and may or may not be dangerous, so the difficulty lies in properly measuring the amount of antitoxin to be use. While the theorist indulges in fanciful speculation, the practical physician cures his patient with the initiatory dose of calomel and supportive treatment. J. J. M.

Book Reviews.

THERAPEUTICS IN INFANCY AND CHILDHOOD. By A. Jacobi, M. D. Second Edition. Philadelphia. J. B. Lippincott. 1898.

The second edition of this book containing 15 chapters has just been received.

Commencing with the feeding of sick children, the author has his peculiar style of writing. For example, on page 22 in this same chapter, speaking of the con———— of hydrochloric acid, he says: "My method of infant feeding is suited for the stomachs and purses of the rich and poor alike." This, however, is not the only one proposed and found such. On the same page, speaking of the boiling of milk, he says that he has persistently advised the same for 40 years at least, and also in his clinical lectures during more than one-third of a century.

One point wherein the author is rather positive—he states on page 27 that the daily home sterilization is by far preferable to the risky purchase from wholesale manufacturers, who cannot guarantee, because in the nature of things they cannot know the condition of their wares.

He states that no subject has been more eagerly or more spitefully treated than infant feeding.

Speaking of sterilizing cows' milk as a substitute for woman's milk, he states that when it is used exclusively constitutional derangements, such as rickets and occasionally scurvy, result therefrom.

Speaking of milk laboratories, the author states that he encouraged the gentlemen who conducted a milk laboratory in Boston to establish a similar institution in New York.

Quoting Dr. Rotch, he gives a series of formulae for the combination of laboratory milk.

He states that his experience has taught him somewhat different ariomatic positiveness of his (Rotch's) assertion. He refers to a number of babies who in health and disease have done well on the protracted use of the laboratory milk. "Only one observation struck me," the author says. In many cases the formation of the muscles and particularly of the bones appeared to be slow, the teeth came a number of weeks, or even months, too late, the cranial bones turning slightly soft in not a few instances. In many such cases I had to add animal broths or juice before the usual time.

If, or as long as the circulars of the laboratory keep free of pertinacious exaggerations (there was a time when they took that turn) the profession will do well to rely on it or its like.

When it is found insufficient as regards tissue building cereals may always be furnished in the same mixture.

Like Professor Rotch, Professor G. Gaertner, of Vienna, employs the centrifuge for the purpose of obtaining milk resembling that of woman's.

Escherich describes this Gaertner Fettmilch in the Vienna Medical Weekly of 1894.

Jacobi claims that the difference between Gaertner's and Rotch's methods is this—that the former is applicable to the large majority (but that only) of infants who require cows' milk proportionately prepared, and that the latter permits of all sorts of changes and percentages, and of all adaptations to the requirements of both the well and the sick.

He further states "that Gaertner's Milk is to be given in the same unchanged percentages during all the months of feeding, only the quanti-

ties are gradually increased, and the number of meals are diminished."

What little experience I had with it, however, seems to be favorable.

He then states "that in order to avoid the same conditions as he reported from the use of Rotch's plan of feeding, that additional feeding and medication may be required in many instances."

Another difference between the two is almost self understood. The Gaertner milk is patented by the inventor and sent to the market with semi-scientific, partly unintelligible and rather boastful circulars.

Does Jacobi believe for a moment that Professor Escherich's experience is semi-scientific? It certainly shows a little animus on his part, or else he is not aware of the fact that the Walker-Gordon milk is patented, No. 539,760, May 21, 1895, by George H. Walker, Gustavus E. Gordon, of Boston, and John H. Waterhouse, of Malden, Mass., so that the statement made is certainly incorrect, as not only is the one patented in Europe, but both are patented—Walker-Gordon Milk in America and the Gaertner Milk in Europe.

On page 43 of his second edition we find this distinguished author advocating the use of an artificial food preparation, and further on he states that to recommend it as a regular food is trade. A very peculiar circumstance is, however, the fact that he recommends this same former food on page 57, under the heading of "Albumoses," and still stranger is the fact that he advises it for rectal alimentation, on Page 58.

His chapter on "General Therapeutics" is rather interesting; in fact, it is quite up to date. The author agrees that Marmorek's serum is not as efficacious as anti-toxine is in diphtheria.

We noted that Schleich's method of anesthesia by infiltration is given attention.

We find that Jacobi recommends opium and hypodermics of morphine in a great many places, as for example, in his chapter on infectious diseases.

The popular opinion that opium and its alkaloids are not well tolerated in children is certainly not borne out by the experience of this author. He recommends this drug on pages 211 and 212, and further, in speaking of intestinal ulcerations on page 212, he states that opium and its alkaloids are invaluable in the treatment of the same. Here he devotes almost one page to the discussion of the value of this one drug.

In his chapter on "Diphtheria," to which he devotes 30 pages, we find that the author still advocates the ancient form of mercurial treatment, and then tries to modify it by stating that he advises it in combination with anti toxine. He further states that a colleague who handles anti toxine a good deal pronounces mercury and anti toxine to be incompatible.

Strange to say, Jacobi quotes Escherich, Baginsky and Roux favoring medicinal treatment in connection with anti toxine. Escherich, however, is quoted to be strongly in favor of using medicinal treatment after the membranes have fallen off.

We cannot understand how Jacobi can quote Escherich as an authority in the treatment of diphtheria and not accept his painstaking labors in the dietetic management of infancy.

The author dwells at length on the great value of the bichloride treatment in diphtheria, and makes it appear that it is far better than using anti toxine for the treatment of diphtheria. On page 420 of the New York Medical Record, March 21, 1896, there is an extended review of the author's first edition, in which we find the following: "The painstaking labor of Dr. L. Fischer in bringing the new treatment (speaking of anti toxine) into general use is not given its proper credit. Strange to say, that author in the preface of his second edition states that the criticism of reviewers and correspondents has been taken advantage of. This is certainly not the case in regard to his chapter on diphtheria. The arrangement of the chapters has been somewhat changed, although the wording in most of them is exactly as it was in his first edition.

We find very little more than what has already appeared in his first edition, and hope that this distinguish-

ed author may live long to earn and enjoy the success for which his honest labors are well known.

One point more, it is a pity that we note that Jacobi condemns all forms of patent foods and warns against their use, and still recommends a patent food on page 43. Nine lines below this he says, "to recommend it is trade," and agrees with Klemperer, who condemns them, because of their uselessness. Jacobi states that this is exactly the position I have always taken in regard to artificial foods. Speaking of intestinal catarrh on page 21, this learned author states, in chronic cases boiled milk must form but a small part of the food, and on the same page he states, in rare cases one of the better artificial foods is quite successful. How inconsistent?

On page 57, speaking of acute renal diseases, we find that the author again recommends this patent food, stating that it is a good addition to the food, easily borne and readily absorbed.

Speaking of rectal alimentation, we again find the author recommending a patent food on page 58, stating that it is readily absorbed in the rectum.

In the chapter on infectious diseases, article on tuberculosis, we find a series of interesting clinical reports. Speaking of creosote, the author advises the carbonate of creosote, which latter drug has been enthusiastically lauded by Louis Fischer in a series of interesting clinical reports from the children's department of the New York Post Graduate Medical School and Hospital, and published in the New York Medical journal for August 17, 1895.

The chapter on diseases of the nervous system we believe to be one of the best in the book.

In his chapter on the diseases of the bones and joints we are rather surprised to see that the author does not believe in the efficacy of the Rauchfuss apparatus. What little experience we have had in rachitic cases has certainly been good, still the author's experience being very large, his words carry great weight.

While feeling that it is an honor to review this distinguished author's book, we also feel that it is our duty to point to any defects which we may feel justified in noting.

L. F.

As a book of reference in orthography and etymology Webster's International Dictionary stands today, as it has for many years, the highest authority in the English language.

It is the standard in the United States Supreme Court, as well as the Government printing offices and public schools.

The difficulty of finding quickly the word wanted is, through the careful and correct alphabetical arrangement, greatly eliminated, while a complete reference index (at a moderate additional cost) enables one to save much time.

The "Medical Times and Register," recognizing its value, uses it in preference to all other English lexicons.

Clinical Medicine.

In charge of Dr. J. J. Morrissey.

THE DYSPEPTIC HYPOCHONDRIAC.

A more rational treatment than has hitherto been followed is now being advocated in that large class of cases which come under the specific designation of "dyspeptics." Heretofore in the majority of cases it has been the custom of a large number of physicians, not only to positively curtail the dietary, but to tender so-called assistance by administering large and oftentimes nauseating doses of various proprietary preparations, supposed to possess a beneficial influence in assisting the weakened powers of the stomach to properly perform their functions.

The first measure adopted cannot be to highly recommended, as it is an unquestioned fact that as a people we eat and drink entirely too much. Indigestion, with its numerous sequelae, is the bane of the successful American-born business man, but it can no longer be held to be a purely developed disease in the native citizen, since many of the foreign importations are successfully cultivating the dyspeptic stomach.

The reason of this is obvious. They not only find a great change in their environment, but also in the character and quantity of their food. Instead of being satisfied with the plainest diet and of just sufficient quantity to satisfy the requirements of their system, they indulge in any and every kind of food that is placed before them, as if they could not too quickly compensate for the abstention of past years.

Nevertheless the fact remains, and a very essential one it is, that the muscular coat of the stomach loses its powers of contractility as quickly from inaction as when too much pressure is brought to bear upon it. This has been forgotten in striving to substitute for its physiological activity an artificial stimulus, which only serves to postpone the evil without thoroughly eradicating it.

Many an unfortunate dyspeptic has undergone a course of the various "pepsines" and "pancreatics" and other therapeutical remedies who might have been easily and quickly cured by the judicious use of common sense. Those people who are perpetually conscious of the presence of their stomachs become veritable hypochondriacs and the unfortunate individuals who are compelled to listen daily to a recital of their gastronomic woes are to be commiserated.

It is a great mistake to acknowledge to many of these hypochondriacs that they have "dyspepsia" without the closest examination, for the confirmation of their own diagnosis intensifies the distressful hallucination from which they suffer, for it will be frequently found that the so-called "dyspepsia" exists more in their imagination than in their stomachs.

The mistake is made too often of eliminating bread and butter from many diet lists, or to permit the patient to partake of it in such small quantities as to practically deprive these two important foods of their nutritive value, and yet, given freely, butter is one of the best methods of improving the heat-producing power so necessary in this class of individuals, who are generally of weak muscular force. This last statement should be the basis of legitimate treatment, for the general innerva-

tion of the system in which the stomach partakes with the other important organs of the body, has to be overcome by outdoor exercises, by the judicious use of the cold douche, by massage and the appliances of the gymnasium.

Iron is not well borne by these patients. It frequently serves to make them more irritable and melancholy, and exercises a depressing rather than a stimulating effect. Many practitioners err greatly in administering the astringent preparations, particularly for the anemia frequently found in these hypochondriacs. Their circulation is sluggish and the iron is not absorbed as quickly as it should be to derive benefit from its administration. On the other hand the oxygen supplied by outdoor exercise cannot be too highly praised. The impoverished nerves quickly react to the improved circulatory influences, and the hypochondriac of to-day becomes the happy individual of to-morrow, whose healthy equipoise diffuses an atmosphere of joy, where before unrest and selfishness dominated.

Another mistake, it seems to me, frequently committed in the treatment of those cases is the administration of large doses of strychnine. This remedy defeats the very purpose for which it is prescribed, by increasing the restlessness already present. Given in small doses and gradually increased as the system responds, it becomes an ally whose value cannot be too highly praised.

Cannabis indica is also of great and decided utility in diminishing the melancholia, but is used to greater advantage in ameliorating the depression which at times forms such a striking symptom of dilatation of the colon.

To sum up, then, we would state that the nervous system is generally the last to succumb in cases of malnutrition, and quickly recovers its equilibrium when properly coached, but it cannot be forced. If there was more common sense and less medicine administered in the class of cases described above our treatment would not be the failure it so frequently is. J. J. M.

SECONDARY INFECTION WITH TUBERCLE BACILLI.

D. Hansemann (Berl. klin. Woch., March 14, 1898) says that although the secondary infection of tuberculous lesions with other kinds of microbes has been much discussed, the secondary infection of diseased parts of the body with tubercle bacilli has been less considered. At the Berlin Medical Society he demonstrated specimens illustrating the latter condition. Amongst them was a specimen showing the secondary infection of typhoid ulcers of the small intestine with miliary tubercles. Similar cases have been recorded by F. Ernst, Birsch-Hirschfeld, and Heuschert. Hansemann does not think that scrofulous enlargement of lymphatic glands necessarily implies the presence of tubercle bacilli, though such glands are eminently predisposed to invasion by the bacilli. In a child aged 4 3-4 he found scrofulous mesenteric glands, some of which showed simple hyperplastic changes, whilst others showed distinct tuberculous changes. He exhibited a lung with croupous pneumonia; in the hepatized portion were Fraenkel's pneumococci, but there were likewise recent caseous patches containing tubercle bacilli. The patient at first had typical pneumonia with pneumococci in the sputum, but the symptoms changed and tubercle bacilli appeared in the sputum. He likewise demonstrated specimens from a case of broncho-pneumonia, in which some of the patches of pulmonary consolidation near an old apical tuberculous lesion had undergone a secondary infection with tubercle bacilli. Fibrous thickening around bronchi, such as occurs in old persons, favors secondary infection with tubercle bacilli, but is not itself necessarily of tuberculous origin. In the chronic fibroid changes sometimes resulting from acute pneumonia secondary tuberculous changes are very apt to develop, and so also in the chronic lymphangitis of the lungs resulting from the inhalation of coal dust, etc. Such cases may, however, be diagnosed as phthisis, without any secondary infection with tubercle bacilli having in reality taken place. There are certain less

coarse fibroid changes in the lungs, which are due to chronic lymphangitis of uncertain origin (certainly not caused by ordinary pneumonia, bronchitis or syphilis), and such lungs are very liable to secondary infection with pyogenic microbes or tubercle bacilli. In another case with a bronchiectatic cavity in each upper lobe Hansemann found only streptococci and putrefactive bacteria in one cavity, whereas a profuse growth of tubercle bacilli was present on the walls of the other cavity; he thinks that in this case the tubercle bacilli lived practically merely as saprophytes, because no tuberculous lesion was found in any other part of the body. He believes that syphilitic lesions in the lungs are generally invaded by tubercle bacilli, and that pulmonary syphilis is thus frequently difficult to recognize; in fact, when completely caseous gummata becomes secondary infected with tubercle bacilli, it is impossible to distinguish them from caseous patches of tuberculous origin. In the discussion which followed Hansemann's paper Kroenig pointed out the danger of placing patients suffering from pneumonia or from enteric fever with pulmonary complications, in hospital wards close to consumptive patients.

HANOT'S CIRRHOSIS OF THE LIVER.

E. Boix (Presse Med., March 16, 1898), at the Paris Society of Biology, recorded his observations on the form of hypertrophic cirrhosis with chronic jaundice described by Hanot. (1) The splenic enlargement persists unaltered during the whole course of the illness, although the variations in the size of the liver may be considerable and of frequent occurrence. (2) The splenic enlargement precedes the alterations in the liver, or at least it precedes the outward manifestations of the disease. In one of Boix's patients, who died at about 30 of this form of cirrhosis, a large spleen had been noted during youth. (3) The disease may sometimes occur in different members of the same family. Children of patients may have a large spleen without any other sign of the affection. In one family the children are said to have a very pigmented skin, and this has been observed likewise in some collateral branches of the family. (4) The large spleen may be considered as the essential part of the disease. (5) Although ordinarily malaria has nothing to do with the affection, the cause is probably analogous to that of malaria and dependent on drinking water. (6) As Hanot and Riener admitted, the affection seems to be a specific one, or at least a peculiar infection of the spleen and liver, not a simple infection of the liver.

GASTRIC FORM OF EPILEPSY.

Fichaux has collected (These de Lillie, 1897) a certain number of cases showing the existence of a form of epileptic seizure which manifests itself by attacks of gastralgia. This form of the disease has attracted very little notice, Trousseau and Fere being almost the only writers who allude to it. To quote one case in illustration: A girl aged 22 under the writer's care, apparently in good health, will suddenly cry out with severe pain in the epigastrium, this not being preceded by any other symptom. If standing up she has time to sit down; she becomes extremely pale, with a slight loss of consciousness lasting for two or three seconds, during which time she is unable to perceive any sensation. On returning to consciousness there is a feeling of fatigue and headache, which lasts an hour or so. Under the influence of bromide these attacks become very much less frequent. In all the cases collected by the author there was this same sudden character in the onset. In the absence of every other symptom the apparently perfect health of the patient between the attacks is strongly suggestive of their epileptic nature.

CLINICAL SURGERY AND SURGICAL PATHOLOGY

In charge of T. H. MANLEY, M. D., New York

PRELIMINARY LIGATION OF THE CAROTID.

(The Belgian Society of Surgery, 19 March, 1898.)

M. Daudois had found that ligation of the external carotid artery very sensibly diminished the loss of blood in ablation of the upper jaw, and it in no wise interfered with the later union of osteo-cutaneous flap.

M. Depage operated in the nasopharynx with and without carotid ligation. He did not find much aid from preliminary ligation.

M. Gallet did not regard this procedure as necessary. He had employed temporary ligation, but was always cautious not to allow the ligation to remain on long, lest a thrombus might form. M. Depage had allowed the temporary ligation to close the vessel for more than half an hour, but the circulation was at once re-established on its removal.

M. Penneman approved of this in the young, but it was unsafe in the aged with brittle, friable arteries.

—Gazette Heb., 21 April, '98.

THE SURGERY OF THE SEMINAL VESSICLES.

BY M. GUILLIOT.

The seminal vesicles have only recently attracted the attention of the profession when the seat of disease.

Spermato cystitis and vesiculitis are modern terms, studied in connection with the sequelae of gonorrhea.

But of late, since a more critical examination has been made through the improved resources of the healing art, it has been found that these tubes are the seat of occlusion, suppuration, tuberculosis or cancer.

We have removed the tuberculous testicle and vas deferens; why not these organs?

Well, since the sacral route has been opened for rectal extirpation it has been found practicable to reach by the same method these organs when diseased.

Operative indications are presented when suppuration is suspected or malignant disease exists. Vesiculocystitis in gonorrhea or tuberculosis may require direct treatment, although it is unusual. But when a localized suppurative process is present, with a tendency to spread, these choked up tubes must be sought out and directly treated.

In 1850 Mitchell Henry discovered an abscess of the vesicles and drained it off by the rectum, his patient recovering. Later Kocher employed the same expedient and lost his patient. Lloyd, Horowitz and others have dealt with various lesions of the retro-vesical tubes by the perineal incision.

Concretions here of inspissated semen may cause great distension of the tubules, though very often we may displace them by a "milking" process through the rectum.

Uhlman in 1889 successfully removed the seminal vesicles for tuberculosis. This operator regards surgery urgent here, when the symptoms are urgent, and that spermato cystectomy was certainly among legitimate procedure.

Note.—This procedure is only warranted in extreme cases, for the reason that it entails an operation at once bloody and difficult, usually a Kruske resection of the sacrum and displacement of the rectum are necessary, and, moreover, urinary or fecal fistula have often followed many of the so-called "successful" cases.

T. H. M.

—La Presse Medicale, January, '98.

TWENTY-TWO CONSECUTIVE ARTHROTOMIES OF KNEE.

BY JOHN O'CONNOR, M. A., M. D.,
Buenos Ayres, Argentine,
Senior Medical Officer, British Hospital.

All the cases have been treated during the past two years, and no selective process was adopted for this report. The rheumatic patients were operated on, because the function of their joints seemed doomed, and in one case this treatment was undertaken as a forlorn hope to save a patient's life.

No apology is necessary for the drainage of gonorrheal knee joints, as all expectant plans have proved utterly futile, neither does the removal of blood and clots need any qualifying remark, further than that it is a surgical obligation.

As to traumatic "water on the knee," in my opinion no method of treatment has a brighter future before it than arthrotomy and drainage.

All the joints were irrigated during operation with mercuric lotion, and in five cases it was daily repeated.

Drainage was continued in each instance until the serous discharge had ceased, and nothing but normal synovial fluid seen trickling from the wound.

Splints were only used in six cases and were early discarded. Active motion was enforced as soon as the gauze drain was dispensed with, and in not a single case was there any cause for post-operative anxiety.

—American Journal of Surgery and Gynecology.

The author so treated five traumatic cases with sero-sanguinous effusion, one of chronic synovial effusion, one acute rheumatic effusion, four gonorrheal and others for various conditions. In all recovery was promptly followed with fair function. The writer concludes by stating:

"I think these cases tend to prove that surgery deserves a trial in some common affections of the knee joint."

To this we must take some exceptions. For example, in simple effusion from any cause, without great pain and acute in character, it certainly is not good surgery to open an articulation until simple remedies have been first faithfully tried, but in tubercular arthritis or that of a gonorrheal origin we will do well to open the joint early and widely.

Three things are indispensable in these arthrotomies, viz.; First, open the synovial mebrane widely, irrigate or curette thoroughly, and finally drain well under severe antiseptic precautions. T. H. M.

THE TREATMENT OF TUBERCULAR JOINTS BY THE INJECTION OF IODOFORM.

W. H. Brown has had very good results with this treatment. He has adopted it in 30 cases.

The ages of the patients varied from 2 to 45 years, the majority being children under 8 years. The amount of iodoform used was 10 grains in children under 8 years of age, and 15 grains in persons over that age. The number of injections varied from three to 20. All the cases were examples of well-marked tuberculosis; in several the disease had gone on to suppuration. No toxic effects were observed; there was usually a rise of temperature for three or four days, accompanied by local tenderness, after each injection. The joints affected were the hip, knee, elbow and shoulder.

The results were as follows: Three cases were subsequently subjected to excision of the joint; all the rest received considerable benefit, several are apparently quite well, and in the remainder the progress of the disease has been arrested.

—Quarterly Medical Journal, January, 1898.

PRIMARY TUBERCULOSIS OF THE RECTUM, WITH REPORT OF CASES.

Tuberculosis to-day is one of the most interesting diseases which claims the attention of the scientific men in the profession. I purpose reporting a number of cases of primary tuberculosis of the rectum. From my point of view it is strictly a surgical disease, as much so as is appendicitis. In the light of modern scientific progress it is right and proper for us to use every particle of

light which science affords. For that reason I have not been contented with making a diagnosis from the clinical symptoms or ear marks, but have gone a step further; that is, I have looked for and found the tubercle bacilli. The finding of the bacilli is a scientific proof of diagnosis. So far as I know it is the only scientific research or work along this line. Messrs. Allingham, Cripps and Ball have reported cases of primary tuberculosis of the rectum, but they have invariably relied on the clinical symptoms to make a diagnosis.

CONCLUSIONS.

1. That primary tuberculosis of the rectum is not so infrequent as some of the leading authorities have taught.

2. That it is a surgical disease as much so as is appendicitis.

3. That it is not and cannot be diagnosed by the clinical symptoms as given by the various writers on diseases of the rectum.

4. That the only scientific and correct way of making a diagnosis is by the use of the microscope.

5. That by thorough curettement or excision or both together with cautery it is not only cured but remains cured much more often than is dreamed of; certainly more often than the teaching of the authorities would have us to believe.

6. That some of the apparently most helpless cases are cured by repeated operations.

7. That all suspicious cases should be submitted for microscopical examination, for the reason it is the only scientific method of reaching a diagnosis.

8. That local treatment is not equal to curing these cases; permanent results are to be had by a radical destruction of diseased tissue or the habitat of the tubercle bacilli.

9. That these cases are and have been cured, and that sufficient time has elapsed for us to conclude that they will remain cured.

10. That early and repeated operations, if need be, are imperative, if these cases are to be permanently cured.

—Mathews' Quarterly Journal.

REMOVAL OF CALCULI FROM THE URETER.

Fenwick recommends the following routes for dealing with calculi impacted in the ureter:

In the upper third of ureter, ordinary lumbar incision.

Near the pelvic brim, common iliac artery incision.

Below the pelvic brim, perineal or vaginal incision.

He says that the best route for removal of stones in the lower third of the ureter has not yet been definitely settled. In sevaral cases the abdominal incision for ligature of the common iliac artery has been successfully used. If the stone can be detected by vaginal or rectal examination it can be easily and safely removed through a transverse perineal incision in the males, and by an incision through the vaginal roof in the female. Details of two cases, illustrating these methods of removal are given.

—Medical Chronicle, May, 1898.

ACUTE OTITIS MEDIA.

I have seen the following simple device, always convenient, give grateful relief: A piece of cotton is placed lightly in the mouth of the canal. A pipe is filled with tobacco and lighted. Then a piece of clean cloth is placed over the mouth of the pipe bowl and gently blown through, while the lip piece of the warm stem rests against the cotton pledget. This filters the warm smoke through the cotton into the canal, and a grateful sedative effect is soon obtained. I do not remember having seen this remedy mentioned in the books, but I have witnessed its efficacy in the absence of other remedies. The practice indulged in by the laity of pouring oils, etc., into the ear is a vicious one, since these become rancid, irritate and predispose to a subsequent inflammation. Poulticing is also bad, for it favors suppuration and perforation of the drumhead.

—Dr. Seth Scott Bishop in Lancet Clinic.

In the treatment of acute cystitis five drops of the tincture of thuja every three hours is a valuable remedy.

—Med. Summary.

PEDIATRICS.

In Charge of Dr. L. Fischer.

LUMBAR PUNCTURE.

Lumbar puncture has proved so successful in the hands of the majority of the clinicians who have used it that there now exists little doubt regarding its utility in the diagnosis of obscure meningeal lesions, and considerable clinical investigation is being carried on, with an endeavor to more clearly establish and define the scope of its application, both in diagnosis and prognosis.

SPINAL PUNCTURE IN EPIDEMIC MENINGITIS.

Councilman in a recent paper (Johns Hopkins Hospital Bulletin, Feb., 1898) conclusively demonstrates the use of spinal puncture in epidemic cerebro-spinal meningitis. This observer practiced lumbar puncture in 55 cases of this disease; in 38 cases the specific micro-organism was capable of demonstration in the withdrawn fluid. Many of the failures to detect the specific diplococcus in the aspirated fluid could be attributed to the late stage of the disease at which the puncture was made.

Grunert, in the Munchener Medicinische Wochenscrift, Dec. 14, 1897, speaks of the value of lumbar puncture in the diagnosis of intracranial complications of middle ear disease, with more particular reference to the determination of the existence of a lepto-meningitis in connection with purulent otitis media, and reports the good results of its application in four cases.

Korner (Centralb. fur die Grenzgebiete der Med. und Chirurg., Dec., 1897) likewise recommends puncture in cases of otitic brain abscess, if a complicating lepto-meningitis is suspected. Absence of polynuclear leucocytes would indicate the absence of inflammation of the lepto-meninges.

Finally a number of cases of hemorrhage into the brain and spinal cord have been diagnosticated by recourse to this procedure.

Raczynski in the Wiener Klinische Rundschau, Feb. 26, 1898, refers to the interest aroused by the diagnostic possibilities, and believes that its therapeutic value has been overlooked. He presented a paper upon its uses in hydrocephalus at the International Congress at Moscow. In the so-called primary, or idiopathic form of hydrocephalus (congenital or acquired), the results were negative, whether the patient came under observation during the process of enlargement of the cranium or when the process had been completed, and had become stationary. In either event the exudation recurred promptly after the operation. By far the best results were obtained in cases of hydrocephalus of inflammatory origin. In several of these patients the pain, convulsions and vomiting were quickly relieved. The tendency is to recurrence, but the results were sufficiently pronounced to justify the hope that the operation may be curative.

Raczynski directs attention to the comparative safety of lumbar puncture as compared with paracentesis of the cranium, the fluid obtained in the second and later spinal operations showing none of the increase in inflammatory products so frequently following the latter method.

Quincke's operation is simple, and is carried out with aseptic precautions. It is performed by the introduction of a small and delicate trocar between the third and fourth lumbar vertebrae, in the middle line, or one centimetre laterally, in a slightly obliquely upward direction. The distance into the dura in adults is seven and a half centimetres; in children, two centimetres. The fluid should not be allowed to escape too quickly, but drop by drop, and should be at once submitted to chemical, microscopical and bacteriological examination. From one and a half to two ounces are to be withdrawn.

Raczynski prefers the sitting to the prone position. The nurse or mother holds the child upon her lap, with the knees flexed upon the abdomen, as in the fetal position. The child's pelvis is firmly fixed between the nurse's knees. The prone position has the advantage of counteracting the tendency to cerebral anemia, which is apt to follow the puncture, but in 87 operations upon 26 children no disagreeable results were noted. The advantage is that fewer assistants are needed, and the patient feels more assurance in the arms of the nurse or mother. L. F.

HOW SHALL AN INFANT BE NOURISHED WHOSE FATHER IS SYPHILITIC?

The author first discusses the question: May we allow a child whose father is syphilitic—the mother being healthy—to wet nurse without endangering the health of the nursing woman?

1. It may be so nursed where the following favorable conditions are present: If the health of the father is perfectly satisfactory, if the syphilitic infection has occurred a long time ago, say ten years, and if it was benign, only manifesting itself in a small number of specific symptoms, where no syphilitic phenomena have appeared during the last eight or nine years, and where treatment has been pursued in a systematic manner for a long time.

2. It should not be wet-nursed in the so-called intermediary cases, where the danger of infecting the nurse and the chances of not doing so are about equal; for example, the father has been syphilitic for about three years, the symptoms neither very slight nor severe, the last symptoms having occurred only a year ago; treatment having been carried out systematically for a few months only. In these cases the chances for the immunity of the child may, of course, be great, but the possible infection of the nurse cannot be positively excluded. In many cases, however, the rejection of a nurse is equivalent to the choice of feeding the syphilitic child from the breast of the mother or with artificial food. In those cases in which it is impossible for any reason for the syphilitic child to nurse from its mother nothing remains to be done but to bring it up on the bottle.

Fournier also enters a protest against the practice of allowing children of syphilitic parents to nurse from a woman, advocating taking them from the breast as soon as the slightest symptoms develop. The reason for this protest is that Fournier believes the necessary adequate supervision to be practically impossible, as small lesions of the mouth or nose in the infant may be overlooked by the physician in spite of a careful examination, and because experience has proven that in spite of this careful supervision the nurse has been infected.

Another question to be answered is how the physician is to bear himself when the father of the child has previously made arrangements with the nurse in case the latter should be infected. Fournier considers that the physician's concurrence in such a case is undignified, and that he is not absolved in this compact by law. Leaving aside the question of law, however, such an acquiescence is neither honest nor moral, for the reason that the nurse is not aware of the magnitude of her danger.

It is the physician's duty, therefore, to protest against the consummation of such an arrangement, and if necessary to withdraw in order not to compromise his dignity. We will therefore be forced in most cases to counsel the bringing up of the child at the mother's breast, even should

it be certain that individual exceptions to Colles-Baume should occur. Fournier himself is not cognizant of any such exceptions in his own experience. The husband in such a case should, however, consider it his duty to tell the mother the truth in order to induce her to nurse her own child.

For the rest, Fournier, referring to statistics lately published by Budin, and to his own experience, remarks that the latest advance in the artificial feeding of infants has greatly increased the chance of raising syphilitic children. L. F.

AN EXPERIMENTAL INQUIRY INTO ROOM DISINFECTION WITH FORMALIN.

Fairbanks and Grawitz (Centralb. fur Bacteriologie, Jan. 8, 1898) made a series of experiments with Schering's formalin sterilizer, using the pastiles supplied by this firm. A medium-sized room was selected, and two grammes of formalin was vaporized to the cubic meter of air space. Cultures of anthrax, typhoid, diphtheria and staphylococcus aureus were used, some being placed superficially and others between cloths or mattresses. The results showed that any of these organisms were completely sterilized after 30 hours, if not too deeply hidden away. The anthrax bacillus when placed between mattresses was not sterilized. The room dust contained a spore bearing bacillus which had resisted disinfection, but this was harmless to animals. L. F.

SUMMER DIARRHEA IN INFANTS.

Dr. Wells in a recent discussion on summer diarrhea in infants called attention to the necessity of instant removal of milk as an article of diet, should diarrhea and vomiting appear. To continue feeding an infant on milk under these conditions is worse than foolish, and is adding fuel to a flame. These infants should receive no food for from 12 to 24 hours, but they may be given a few drops of brandy in sterilized water. At the end of this time a little freshly prepared beef juice, panopepton or albumen water may be used every three or four hours with benefit, and in 48 to 72 hours, if vomiting and diarrhea have entirely ceased, a mild formula, low in proteids and fats, may be tried, and if no bad symptoms follow, may be repeated. Proper medical treatment should, of course, be used.—Ex.

L. F.

THE MICROBIC ORIGIN OF RHEUMATISM.

Within the last few months a number of cases of rheumatism have been observed, from which bacteria were obtained, either from the blood or the joint effusion. Thiroloix reports a case from which he isolated from the blood during the febrile paroxysm a bacillus occurring singly or in pairs, and having marked pathogenic properties. The organism produced local edema in rabbits, and after inoculation into the circulation heart changes in the form of myo and endocarditis. Thiroloix states this to be the same organism which was discovered by Achalme in 1891, and rediscovered by him in 1897. Achalme claims to have isolated a similar organism from severe cases of cerebral rheumatism in 1891, and again in 1897. He found the organism in the heart's blood, and in some instances in the cerebro-spinal fluid. Another observer, Papillon, also claims to have isolated Achalme's bacillus, as do two Italian observers, who worked independently on this subject. Triboulet and Coyon claim to have isolated a specific diplococcus from five consecutive cases of acute articular rheumatism; this organism was twice associated with Achalme's bacillus.

The evidence in favor of a bacterial origin for this disease is therefore at present rather contradictory and points to the fact that we are perhaps dealing with two or three separate diseases. In any event the observations of the above-mentioned authors are hardly yet extensive enough to draw satisfactory conclusions.

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